

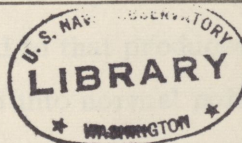
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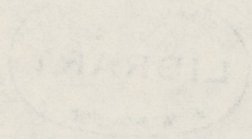


NORMALIZED OBSERVATIONS OF VENUS 1901 - 1949

by

P. M. Janiczek and P. K. Seidelmann

The reconstructed observations described and tabulated in this *Circular* were derived from residuals that were systematically reduced and employed by R. L. Duncombe in a discussion of the motion of Venus (*Astronomical Papers prepared for the use of the American Ephemeris and Nautical Almanac*, volume XVI, part 1, 1958). These data are available in machine readable form and may be obtained through inquiry to the Superintendent, U. S. Naval Observatory, Washington, D. C. 20390.



EXPLANATION

When comparing a planetary theory with observations, it has been customary to transcribe, and employ in subsequent calculations, residuals given by observers' comparisons with transit ephemerides. After application of corrections to reduce the observations to the adopted reference system, together with adjustments to convert the ephemeris originally used to that produced by the theory being investigated, the results were collected into normal points. Publication of conditional and normal equations facilitated later investigations, which could be carried out by modification and extension of these equations. Formerly, these practices were not merely a convenience; they represented the means by which an immense number of arithmetic operations could be made tractable.

The application of electronic computers has changed the situation, for what is both practical and desirable. It is still possible to take up existing normal residuals and make adjustments for systematic differences between fundamental catalogs. However, reduction of residuals from one general theory to those of another, by means of approximate algebraic or trigonometric expressions connecting the two theories, has little value. With one exception, extant general theories of the planets are inadequate for modern needs, and current recourse is to numerical integrations. Succinct analytic relations between such integrations and the theories embedded in residuals of prior observational tests do not exist. When new general theories are available, it will be undesirable, and will probably involve a difficult transformation of variables, to develop analytical corrections to the old theories. Also, due to the use of computers, it is no longer necessary to reduce the volume of data by adopting residuals and forming normal points; and it has become preferable to retain observations as close to their original form as possible.

Based on the practices of the past, there are now two approaches possible. The first is to return to the original observations which is time consuming and bears the encumbrance of systematic discussion and adjustment. The second is to restore residuals to the status of observations by incrementing them with the original comparison ephemeris. The data of the circular represent the implementation of the second approach to make available, for comparison with new theories of motion, the observations of Venus from six observatories.

The residuals of the conditional equations, as tabulated by Duncombe, are a comparison of homogeneously reduced observations with Newcomb's theories of the Sun and Venus, the latter is represented in the British Nautical Almanac. However, translation of the numbers printed in the Almanac into computer accessible form was the decidedly inferior alternative to evaluating the theories directly. Positions of the Sun and Venus given in most of the national ephemerides have been, and are yet, derived indirectly from theory through Newcomb's "Tables". To duplicate the coordinates printed in the Nautical Almanac, it was necessary to modify the algorithms, presented as Newcomb's theories, to yield results which would approach the published data in the almanac.

In the case of Venus (Astronomical Papers prepared for the use of the American Ephemeris and Nautical Almanac, volume VI part 3, 1898), a reading of Newcomb's description of the quantities actually tabulated enables one to obtain good agreement between results from "Tables" and those from the algorithm. Differences never attain 0.1 in heliocentric longitude, and are insignificant in latitude and radial distance.

To achieve agreement between theory and "Tables" in the case of the Sun (Astronomical Papers prepared for the use of the American Ephemeris and Nautical Almanac, volume VI part 1, 1898), it is necessary to alter several terms in the periodic structure of the algorithm. Further, one must refer to

the sections of description and precepts for use of the "Tables" to discover the manner in which Newcomb interpreted the theory. Satisfactory agreement of results was obtained, with the discordance in longitude reaching a peak of $0^{\circ}11'$ twice during the interval 1901-1949. The agreement in latitude and radius vector was better than that for longitude, but not exact.

Since the original comparisons had been made with the British Nautical Almanac, or subsequently converted to that basis by Duncombe, it was necessary to convert coordinates given by the theories to apparent positions in the same fashion as had been done originally. During the period covered, several changes had been made to nutation, but none were significant enough to necessitate division of the residuals into corresponding groups. Consequently, the conversion of positions to the true equator and equinox of date described in the "Explanation" to the British Nautical Almanac 1939 was adopted. Apparent places were then produced by applying aberration as also explained there.

The reconstructed observations tabulated here are, in a sense, synthetic. They are mean quantities both in position and time, and therefore exact agreement with original observations, systematically reduced, should not be expected. Averaging residuals to form a normal point averages the predicted positions and times. In reconstruction, the position added to a residual was computed for the normal date only. In addition, the modified theories do not exactly duplicate positions produced by the "Tables"; thus, the apparent coordinates would differ from those originally employed by evident, but unimportant, amounts. The probable error of unit weight of a modern transit observation is estimated to be $0^{\circ}.5$ ($1^{\circ}.0$ for older observations). The reconstructed right ascensions and declinations represent original observations well within that error. No sacrifice of information or rigor is associated with the fact that these observations are normal, or average, points. Formation of the original normal residuals

involved time intervals which are too short to reveal a periodic phenomenon of any significance. Moreover, the character of partial differential coefficients in a conditional equation is such that they change very little from day to day. Therefore, construction of a conditional equation for each individual observation would be of no consequence to the solution of the normal equations.

In the table of observations, the Julian Day should be interpreted as the instant of observation (Julian Ephemeris Date), and exact to the number of decimals required. Residuals and weights were reproduced, for convenience, from Duncombe's tabulation. They were used to re-establish the observations as follows. For each entry, apparent geocentric right ascension and declination were computed from the theories for the given date. A residual in right ascension was divided by the product of the square root of the weight and cosine of computed declination. The result was added to the computed right ascension to give the printed right ascension normal point. A declination residual was treated similarly with the exception of division by the cosine of declination. For convenience, the year of observation is contained in the last column.

The reference system of these observations is essentially the system of the FK3 in both coordinates. The details of reduction and correction are contained in Duncombe's study, along with the specification of the sources of the observations.

OBSERVATIONS OF VENUS 1901-1949

7

J. E. D.	R. A.			O - C	WT.	DEC.	O - C	WT.	YEAR
	H	M	S	"		°	'	"	
2415388.7	16	54	15.11	- 0.02	3				1901
2415389.0						-21 29 14.12	0.17	1	1901
2415393.8	17	21	22.32	- 0.66	4	-22 12 49.26	2.26	4	1901
2415399.2	17	50	23.76	0.81	6	-22 43 48.12	5.46	6	1901
2415404.0	18	16	21.04	0.95	1	-22 54 41.91	0.39	1	1901
2415409.8	18	47	44.72	3.76	4	-22 46 26.07	4.40	4	1901
2415416.0	19	21	8.17	1.38	1				1901
2415417.3	19	28	5.67	- 0.14	3	-22 1 22.89	- 0.85	3	1901
2415422.0	19	53	5.75	1.91	3	-21 13 56.01	- 1.66	3	1901
2415429.3	20	31	17.57	1.44	3	-19 32 41.81	2.11	3	1901
2415431.3	20	41	36.06	0.69	3	-18 59 30.85	1.28	3	1901
2415437.0	21	10	34.47	0.27	1	-17 13 6.10	3.26	1	1901
2415443.5	21	42	51.34	- 0.01	2	-14 52 40.66	2.30	2	1901
2415445.0						-14 17 42.49	0.46	1	1901
2415451.0	22	19	8.14	- 0.32	1	-11 49 20.29	0.74	1	1901
2415456.0	22	42	48.73	0.71	1	- 9 36 51.13	- 1.46	1	1901
2415462.0	23	10	46.51	- 0.77	1	- 6 49 24.75	1.24	1	1901
2415466.0	23	29	12.21	1.02	2	- 4 53 59.76	0.55	2	1901
2415472.3	23	57	58.63	0.92	4	- 1 48 8.81	0.06	4	1901
2415476.0	0	14	47.49	0.64	2	0 2 15.75	- 1.74	2	1901
2415478.5						1 17 3.21	0.03	2	1901
2415480.0	0	32	56.92	0.12	1				1901
2415484.5	0	53	24.32	- 2.01	2	4 15 46.96	- 0.71	2	1901
2415491.7	1	26	21.75	- 0.36	3	7 45 59.84	0.09	3	1901
2415494.5	1	39	17.95	3.28	2	9 5 36.43	2.43	2	1901
2415519.2						19 6 50.88	2.28	5	1901
2415519.5	3	39	46.05	1.58	4				1901
2415529.0						21 49 48.56	3.11	5	1901
2415529.8	4	32	37.88	1.98	4				1901
2415540.7	5	30	18.20	- 1.26	3	23 47 3.59	0.50	3	1901
2415546.0	5	58	44.34	- 2.60	4	24 9 27.34	0.14	4	1901
2415549.3	6	16	29.66	- 0.98	4	24 13 18.18	0.38	4	1901
2415561.4	7	21	15.28	- 1.61	7	23 20 55.97	1.35	7	1901
2415564.5	7	37	37.03	- 1.69	6	22 51 7.78	2.08	6	1901
2415570.0	8	6	17.23	2.03	5	21 42 42.53	0.92	5	1901
2415575.4	8	33	54.27	- 1.73	8	20 17 21.08	2.97	8	1901
2415582.7	9	10	18.80	- 1.85	7				1901
2415583.0						17 49 38.80	2.69	6	1901
2415586.3	9	27	51.56	0.66	4	16 36 32.99	0.08	4	1901
2415596.3	10	15	12.42	- 1.75	3	12 27 33.26	1.11	3	1901
2415599.5	10	29	57.77	- 1.60	2	11 0 29.41	- 1.71	2	1901
2415605.3	10	56	17.74	- 2.25	6	8 15 42.38	9.04	6	1901
2415608.5	11	10	37.83	- 0.74	2	6 41 31.81	6.74	2	1901
2415616.2	11	44	41.62	- 5.57	5	2 48 17.03	16.66	5	1901
2415618.7	12	1	25.07	- 6.12	6	1 31 7.26	6.73	6	1901
2415621.6	12	8	20.63	- 3.84	7	0 1 17.97	10.43	7	1901
2415625.8	12	26	40.58	- 2.34	4	- 2 9 5.02	6.50	4	1901
2415632.4	12	55	30.58	- 1.92	9	- 5 32 45.69	1.95	9	1901
2415636.0	13	11	18.76	- 1.00	3				1901
2415636.3						- 7 31 14.89	0.84	4	1901
2415644.0	13	46	48.34	- 0.03	1	-11 18 0.74	- 1.36	1	1901
2415650.7	14	17	5.25	- 1.39	3	-14 23 59.11	- 1.61	3	1901
2415654.3	14	33	37.16	0.16	3	-15 58 10.53	2.86	3	1901
2415657.3	14	47	32.92	0.62	3	-17 13 8.17	2.23	3	1901
2415659.7	14	58	47.86	- 0.02	3	-18 10 31.28	3.05	3	1901

J. E. D.	R. A.			O - C	WT.	DEC.			O - C	WT.	YEAR
	H	M	S	"		O	"	"	"		
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2415674.2	16	8	49.57	- 2.48	5	-22	59	12.87	1.86	5	1901
2415678.3	16	29	12.41	- 1.32	4	-23	59	50.46	1.24	4	1901
2415683.0	16	52	47.42	0.0	6	-24	56	25.69	- 1.08	6	1901
2415687.3						-25	35	28.06	0.56	6	1901
2415687.5	17	15	30.39	- 1.76	6						1901
2415690.8	17	32	11.89	- 0.76	5	-25	57	59.73	- 0.94	5	1901
2415694.1	17	48	52.25	- 2.06	7	-26	11	27.57	- 0.16	7	1901
2415702.0	18	28	26.09	- 3.26	4	-26	12	56.76	- 0.40	4	1901
2415704.5	18	40	46.07	- 3.83	2	-26	4	27.73	1.56	2	1901
2415710.7	19	10	45.29	- 1.45	3	-25	25	40.84	- 0.05	3	1901
2415714.0	19	26	16.34	- 2.06	2	-24	55	8.97	- 0.21	2	1901
2415717.5	19	42	19.69	- 2.30	4	-24	15	44.55	- 0.22	4	1901
2415721.0						-23	29	33.69	0.01	1	1901
2415722.5	20	4	26.95	- 2.38	2						1901
2415725.3	20	16	22.37	- 3.48	3	-22	24	20.57	- 0.61	3	1901
2415729.6	20	33	58.11	- 3.37	8	-21	10	47.74	- 1.48	7	1901
2415735.4	20	56	10.49	- 2.28	7	-19	20	34.28	- 1.67	7	1901
2415737.5	21	3	44.26	- 3.36	4	-18	38	6.31	- 0.84	4	1901
2415742.5	21	20	37.06	- 1.10	2	-16	52	55.76	- 1.98	2	1901
2415746.0	21	31	24.04	- 2.11	2	-15	36	50.46	- 0.74	2	1901
2415750.0	21	42	34.61	- 2.69	1	-14	8	41.02	- 1.67	1	1902
2415752.6	21	49	7.86	- 3.02	5	-13	11	16.30	- 3.82	5	1902
2415757.0	21	58	48.43	- 3.36	4	-11	35	15.74	- 4.50	4	1902
2415764.3	22	10	21.08	- 3.94	6	- 9	4	34.99	- 1.86	6	1902
2415768.3	22	13	53.25	- 3.00	4	- 7	50	20.79	- 3.70	4	1902
2415776.5	22	13	52.37	- 2.93	2	- 5	48	32.75	- 3.72	2	1902
2415779.8	22	10	56.11	0.50	4	- 5	14	55.58	- 6.00	4	1902
2415786.0	22	1	7.28	- 5.12	4	- 4	41	36.68	- 2.60	4	1902
2415788.5	21	55	51.38	- 3.00	2	- 4	40	3.45	- 1.92	2	1902
2415791.8	21	48	9.42	- 0.42	4	- 4	48	19.49	- 0.34	4	1902
2415796.5	21	36	39.09	0.21	2	- 5	18	17.61	- 0.76	2	1902
2415801.0	21	26	23.79	3.34	2	- 6	1	57.38	- 2.46	2	1902
2415805.0	21	18	58.38	0.28	1						1902
2415806.5						- 7	4	51.19	3.29	2	1902
2415811.7	21	11	48.80	2.13	3	- 8	3	48.48	1.11	3	1902
2415814.5	21	11	0.17	1.05	2	- 8	32	24.49	1.36	2	1902
2415817.0	21	11	21.53	0.26	3	- 8	55	10.49	1.92	3	1902
2415823.0	21	16	4.50	2.08	4	- 9	36	46.83	2.41	5	1902
2415829.5						- 9	58	16.71	0.88	4	1902
2415830.0	21	27	28.91	0.26	3						1902
2415833.8	21	35	50.81	2.08	4	- 9	58	10.73	2.00	4	1902
2415843.0	22	0	51.51	0.75	2	- 9	20	1.07	0.65	2	1902
2415848.5	22	18	12.10	2.05	2	- 8	33	46.50	6.01	2	1902
2415853.3	22	34	21.82	- 1.54	3	- 7	40	29.34	4.00	3	1902
2415857.0	22	47	20.20	0.59	2	- 6	51	45.88	2.93	2	1902
2415864.3	23	13	56.66	- 0.08	4						1902
2415864.4						- 4	56	25.76	3.89	5	1902
2415869.0	23	31	38.38	- 1.00	3	- 3	34	12.28	2.27	3	1902
2415873.5	23	48	54.84	1.44	2	- 2	7	10.29	3.90	2	1902
2415877.0	0	2	32.41	2.08	2						1902
2415877.7						- 0	41	4.18	2.86	3	1902
2415881.5	0	20	16.55	0.0	2	0	40	9.43	- 0.04	2	1902
2415884.5	0	32	13.91	1.33	2	1	46	9.02	2.98	2	1902

J. E. D.	R. A.			O - C	WT.	DEC.			O - C	WT.	YEAR
	H	M	S	"		°	'	"	"		
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2415896.3	1	20	18.25	0.21	3	6	14	56.86	1.89	3	1902
2415899.0	1	31	33.63	0.36	3	7	17	14.31	1.13	3	1902
2415905.0	1	56	57.38	1.70	3	9	34	38.03	2.04	3	1902
2415908.5	2	12	1.51	- 0.45	2	10	53	16.31	0.30	2	1902
2415912.7	2	30	22.40	- 2.96	3	12	25	18.33	- 1.49	3	1902
2415920.0	3	3	0.85	- 1.33	3	14	56	48.43	1.65	3	1902
2415926.0	3	30	36.53	3.17	8	16	50	27.44	0.57	8	1902
2415929.3	3	46	5.53	3.07	3	17	47	46.89	- 2.49	3	1902
2415933.6	4	6	35.44	1.30	5	18	56	9.87	- 2.62	5	1902
2415937.0	4	23	3.23	2.13	3	19	44	36.35	- 2.08	3	1902
2415941.6	4	45	39.62	0.76	5	20	41	26.67	- 2.46	5	1902
2415946.0	5	7	36.96	0.13	5	21	25	40.98	1.10	5	1902
2415948.3	5	19	12.54	- 0.98	4	21	44	34.38	- 0.80	4	1902
2415953.5	5	45	40.49	0.27	2	22	16	5.84	0.69	2	1902
2415956.3	6	0	2.82	1.49	3	22	26	20.02	- 2.67	3	1902
2415959.8	6	18	5.98	2.22	4	22	32	21.97	- 3.10	4	1902
2415964.0						22	29	27.58	- 0.10	4	1902
2415964.3	6	41	23.93	- 0.12	4						1902
2415968.7	7	4	12.56	0.88	3	22	12	53.12	- 0.14	3	1902
2415972.5	7	23	52.47	1.26	2	21	49	15.11	1.24	2	1902
2415976.5	7	44	29.35	- 1.00	2	21	14	32.95	- 2.16	2	1902
2415980.5	8	4	58.72	- 0.92	2						1902
2415980.7						20	27	38.93	- 0.69	3	1902
2415985.3	8	29	20.96	0.32	6	19	24	21.85	0.49	6	1902
2415989.8	8	51	56.41	- 0.76	8	18	11	1.42	0.03	8	1902
2416000.0						14	47	9.93	- 2.59	2	1902
2416000.3	9	43	32.99	- 1.16	3						1902
2416004.5	10	3	44.89	1.60	4						1902
2416005.0						12	50	43.13	- 0.88	3	1902
2416009.5	10	27	28.80	- 0.23	2						1902
2416009.7						10	52	56.72	- 0.21	3	1902
2416012.6	10	42	2.55	1.10	5	9	36	50.96	9.01	5	1902
2416016.3	10	59	17.59	3.83	3	7	56	21.37	9.51	3	1902
2416020.3	11	17	48.17	- 1.54	3	6	4	0.97	- 0.92	3	1902
2416025.0	11	39	25.30	- 0.86	2	3	48	25.65	0.45	2	1902
2416032.0	12	11	28.08	- 3.76	3	0	21	37.18	- 0.81	3	1902
2416037.7	12	37	33.88	- 2.82	3	- 2	28	27.03	1.51	3	1902
2416041.5						- 4	21	29.86	- 0.74	2	1902
2416043.0	13	1	56.90	- 1.43	1						1902
2416044.8	13	10	16.55	- 0.60	4	- 5	58	46.68	0.34	5	1902
2416049.0	13	29	49.44	- 2.03	3	- 8	0	37.49	7.31	3	1902
2416052.7	13	47	12.91	- 2.40	6	- 9	45	34.90	4.43	6	1902
2416056.8	14	6	42.51	0.80	4	-11	38	13.28	9.96	4	1902
2416062.5	14	34	15.16	- 1.41	2	-14	7	3.41	0.44	2	1902
2416102.5	18	4	14.05	- 1.57	2	-23	58	55.20	- 0.30	2	1902
2416110.0						-23	50	39.79	0.89	1	1902
2416110.5	18	48	16.16	- 1.77	2						1902
2416114.0	19	7	26.44	- 1.05	1	-23	29	13.77	0.70	1	1903
2416126.0	20	12	0.64	- 1.54	5	-21	17	4.97	1.10	5	1903
2416129.8	20	31	56.20	- 1.80	4	-20	15	33.12	0.14	4	1903
2416135.0	20	58	43.41	- 1.33	2	-18	37	36.95	0.75	2	1903
2416144.5	21	46	10.32	- 1.65	2	-15	2	54.98	- 0.37	2	1903
2416148.0	22	3	10.88	2.32	1	-13	33	55.99	- 1.74	1	1903
2416153.0	22	27	3.55	- 1.56	3	-11	19	14.75	- 6.82	3	1903

J. E. D.	R. A.			O - C	WT.	DEC.			O - C	WT.	YEAR
	H	M	S	"		O	"	"	"		
2416158.0	22	50	30.38	0.76	6	- 8	57	3.49	- 4.46	6	1903
2416164.0						- 5	58	56.75	- 8.46	8	1903
2416164.3	23	19	32.27	- 0.48	7						1903
2416171.3	23	51	18.88	- 2.18	4	- 2	14	51.68	- 6.44	4	1903
2416178.5	0	23	42.51	- 1.71	2	1	29	39.31	1.02	2	1903
2416185.5	0	55	9.40	2.06	6	5	6	39.30	- 4.73	6	1903
2416187.3	1	3	15.70	- 1.98	4	6	1	45.69	- 3.80	4	1903
2416193.3	1	30	25.73	1.30	4	9	1	59.28	- 1.56	4	1903
2416199.2	1	57	27.39	0.16	5	11	52	2.28	0.02	5	1903
2416202.3	2	11	49.40	1.99	3	13	17	40.07	- 0.64	3	1903
2416214.3	3	8	44.32	- 0.60	4	18	17	15.13	- 0.10	4	1903
2416221.0						20	36	57.83	0.74	2	1903
2416222.0	3	46	27.67	0.08	2						1903
2416224.5	3	58	54.62	- 0.21	2	21	40	33.90	- 1.29	2	1903
2416229.5	4	24	4.68	- 2.84	2	22	59	15.15	1.27	2	1903
2416233.3	4	43	25.15	- 0.50	3	23	48	46.48	0.28	3	1903
2416236.5	4	59	48.81	- 0.41	2						1903
2416236.7						24	25	12.24	- 0.35	3	1903
2416242.5	5	30	42.66	- 2.96	4	25	9	28.82	- 1.02	4	1903
2416248.3	6	0	36.25	- 0.33	3	25	30	37.24	1.52	3	1903
2416256.0	6	39	57.49	- 2.39	5	25	22	34.70	0.87	5	1903
2416259.7	6	58	36.30	0.05	3	25	4	21.16	1.58	3	1903
2416263.6	7	17	59.43	- 1.14	5	24	35	24.00	2.03	5	1903
2416269.6	7	47	8.49	- 1.63	5	23	32	19.66	- 0.40	5	1903
2416273.0	8	3	14.06	- 0.33	3	22	47	17.90	2.65	3	1903
2416279.5	8	33	1.18	- 2.70	2	21	4	6.40	0.20	2	1903
2416282.7	8	47	10.73	- 3.86	3						1903
2416282.8						20	3	58.45	0.80	4	1903
2416286.5	9	3	32.40	- 1.13	2	18	51	2.33	1.81	2	1903
2416292.7	9	29	7.94	- 1.77	3	16	37	23.34	2.88	3	1903
2416295.0	9	38	16.03	- 2.27	3	15	44	40.86	2.63	3	1903
2416297.7	9	48	44.06	- 2.42	6						1903
2416297.8						14	38	35.26	2.84	5	1903
2416304.9	10	15	14.20	- 4.74	7	11	43	23.25	0.50	7	1903
2416308.3	10	27	0.61	- 4.60	4	10	16	43.54	7.06	4	1903
2416311.8	10	38	36.63	- 3.14	4	8	46	15.35	4.06	4	1903
2416317.3	10	55	42.60	- 4.09	3	6	23	3.47	1.04	3	1903
2416320.7	11	5	32.60	- 1.51	3	4	54	48.26	3.12	3	1903
2416325.0	11	17	4.81	- 2.98	2	3	4	30.49	- 0.21	2	1903
2416333.3	11	36	2.41	- 2.62	3	- 0	19	2.53	2.15	3	1903
2416339.0	11	46	0.11	- 3.15	5	- 2	26	48.69	4.38	5	1903
2416342.5	11	50	38.27	0.21	2						1903
2416344.0						- 4	6	37.87	2.49	1	1903
2416348.3	11	55	25.27	- 4.14	3	- 5	20	14.23	1.82	3	1903
2416351.5	11	56	19.42	- 5.16	2	- 6	5	45.71	0.76	2	1903
2416355.5						- 6	49	7.92	2.88	2	1903
2416356.0	11	55	17.17	- 0.45	1						1903
2416360.5	11	51	26.01	- 3.28	6	- 7	18	7.64	1.35	6	1903
2416364.3	11	46	5.26	- 3.07	3	- 7	18	31.46	2.65	3	1903
2416368.0	11	39	20.37	- 0.94	3	- 6	59	46.81	1.18	3	1903
2416376.7	11	20	32.03	- 1.71	3	- 5	8	0.95	1.77	3	1903
2416382.8	11	8	37.85	2.97	5						1903
2416383.0						- 3	10	18.81	2.25	3	1903
2416387.4	11	2	15.48	- 0.36	5						1903
2416387.8						- 1	38	38.15	3.80	4	1903

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	H	M	S	"		°	'	"	
2416389.5	11	0	19.65	0.44	2	- 1	8	9.43	2.30 2 1903
2416393.0	10	58	35.49	- 0.42	1	- 0	11	1.82	0.58 1 1903
2416397.8						0	51	40.68	0.83 6 1903
2416398.0	10	59	21.44	2.15	5				1903
2416402.5	11	3	7.52	0.36	4	1	32	55.49	2.24 4 1903
2416408.0	11	11	11.77	0.01	2				1903
2416408.6						1	55	56.15	1.79 5 1903
2416412.5	11	20	10.78	- 0.42	2	1	53	29.95	1.20 2 1903
2416416.4	11	29	24.39	1.14	5	1	38	44.38	0.27 5 1903
2416418.8	11	35	39.49	2.16	4	1	23	59.01	- 0.02 4 1903
2416422.0						0	58	5.53	0.60 5 1903
2416422.3	11	45	27.62	1.74	4				1903
2416425.2	11	54	7.90	3.02	5	0	25	36.78	- 0.92 5 1903
2416429.5	12	7	47.03	0.26	4	- 0	27	17.75	1.64 4 1903
2416433.5						- 1	24	56.63	- 0.01 2 1903
2416435.0	12	26	25.50	- 0.46	1				1903
2416440.0	12	44	19.61	0.01	1	- 3	12	45.41	0.39 1 1903
2416444.5	13	1	5.97	- 2.87	2	- 4	35	30.56	- 1.06 2 1903
2416448.0	13	14	32.48	- 0.93	2	- 5	43	16.89	0.47 2 1903
2416450.0	13	22	22.14	0.46	1	- 6	23	4.32	0.42 1 1903
2416455.0						- 8	4	57.24	- 0.92 3 1903
2416455.5	13	44	25.24	- 0.10	2				1903
2416460.3	14	4	17.05	- 0.74	4	- 9	54	53.71	- 2.12 4 1903
2416464.3	14	21	15.96	- 0.08	4	-11	17	46.00	- 0.20 4 1903
2416467.5	14	35	7.53	- 0.40	2	-12	23	15.88	0.03 2 1903
2416471.0	14	50	33.66	- 0.40	2	-13	33	26.85	- 1.24 2 1903
2416479.3	15	28	18.87	0.33	3	-16	10	0.96	- 0.12 3 1904
2416484.0	15	50	24.19	- 2.23	1	-17	30	7.05	0.91 1 1904
2416489.0	16	14	27.79	1.76	1	-18	46	31.69	2.45 1 1904
2416494.8	16	43	1.90	0.47	5	-20	1	46.18	0.47 5 1904
2416498.0	16	59	4.12	- 0.34	1	-20	36	16.37	0.05 1 1904
2416507.0	17	45	1.14	0.62	4	-21	43	19.64	1.20 4 1904
2416514.0	18	21	21.49	2.04	4	-22	2	11.94	1.86 4 1904
2416516.5	18	34	24.27	0.65	2				1904
2416517.5						-22	0	8.72	- 1.12 2 1904
2416521.3	18	59	28.88	0.20	4	-21	48	59.24	5.46 4 1904
2416526.7	19	27	37.58	- 1.09	3	-21	17	28.50	- 0.14 3 1904
2416535.0	20	10	27.25	- 0.10	3	-19	53	48.03	2.22 3 1904
2416544.5	20	58	25.16	- 0.18	2	-17	29	35.64	0.54 2 1904
2416548.0	21	15	44.99	0.81	1				1904
2416548.5						-16	14	57.04	1.56 2 1904
2416556.2	21	55	34.80	- 2.08	5	-13	31	14.25	3.42 5 1904
2416560.5	22	16	2.61	- 1.87	2	-11	49	51.51	1.39 2 1904
2416564.0	22	32	29.94	- 1.39	1	-10	22	52.85	- 0.15 1 1904
2416570.0	23	0	20.23	- 2.16	4				1904
2416570.3						- 7	37	49.24	1.52 3 1904
2416573.7	23	17	18.57	0.23	3	- 6	5	3.86	1.23 3 1904
2416577.0	23	32	20.88	1.09	3	- 4	33	6.64	0.73 3 1904
2416584.2	0	4	56.32	1.30	5				1904
2416584.5						- 0	59	15.67	1.54 4 1904
2416588.7	0	25	13.89	- 0.54	3	1	2	0.73	1.87 3 1904
2416591.8	0	39	12.85	1.22	4	2	31	33.28	0.36 4 1904
2416597.3						5	9	23.09	0.21 3 1904
2416598.0	1	7	15.84	- 0.34	2				1904
2416605.4	1	41	4.96	1.92	8	8	55	49.27	- 3.17 8 1904

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	H	M	S	''		O	''	''	
2416613.5	2	18	47.95	0.32	4	12	29	39.16	1.60 4 1904
2416618.0	2	40	9.88	0.72	2	14	20	37.24	1.37 2 1904
2416620.0	2	49	45.94	- 0.38	1				1904
2416620.5						15	19	18.76	0.65 2 1904
2416627.3	3	25	24.72	0.40	3	17	46	34.47	1.16 3 1904
2416637.8	4	18	24.46	3.08	4	20	51	20.69	0.96 4 1904
2416641.3	4	36	30.49	1.18	3	21	39	34.37	0.33 3 1904
2416646.0	5	1	6.90	1.07	3	22	32	39.72	0.80 3 1904
2416654.0	5	43	36.37	- 0.51	1	23	30	1.72	- 1.58 1 1904
2416680.0	8	2	6.86	0.57	2	21	31	42.42	1.39 2 1904
2416688.0	8	43	14.57	0.54	3	19	26	7.06	0.24 3 1904
2416691.5	9	0	52.12	- 1.48	2				1904
2416691.7						18	15	50.71	0.21 3 1904
2416697.5	9	30	32.82	0.80	4	16	11	52.46	2.20 4 1904
2416702.5	9	54	45.85	1.03	2	14	12	54.81	0.68 2 1904
2416711.0	10	34	56.60	0.80	1				1904
2416712.0						10	1	43.33	- 0.30 2 1904
2416716.5						7	53	40.95	0.38 2 1904
2416717.0	11	2	39.78	0.80	1				1904
2416721.0	11	20	54.75	- 1.82	4	5	41	20.06	2.26 4 1904
2416732.0	12	10	32.58	- 1.06	3	0	6	24.85	0.94 3 1904
2416736.5						- 2	12	27.27	0.24 2 1904
2416737.3	12	34	21.87	- 1.25	3				1904
2416741.3	12	52	23.37	- 1.27	6	- 4	39	55.11	- 0.10 6 1904
2416745.4	13	10	57.39	- 2.57	5	- 6	44	20.14	- 0.40 5 1904
2416750.3	13	33	20.28	0.20	4	- 9	9	51.42	6.72 4 1904
2416753.0	13	45	47.03	- 2.17	3	-10	28	10.35	1.39 3 1904
2416756.7	14	3	0.22	- 1.20	3	-12	12	38.93	- 0.50 3 1904
2416761.0	14	23	17.13	- 1.94	4	-14	9	10.70	0.60 4 1904
2416765.0	14	42	26.82	1.87	3	-15	52	2.32	0.03 3 1904
2416768.8						-17	23	59.85	0.78 6 1904
2416769.0	15	1	54.49	0.76	6				1904
2416773.3	15	23	10.92	- 1.16	3	-19	4	39.04	0.43 3 1904
2416778.0	15	46	51.69	- 1.44	3	-20	39	0.26	1.99 3 1904
2416781.7						-21	44	46.24	- 1.21 3 1904
2416781.8	16	6	19.62	- 1.34	4				1904
2416784.0	16	17	43.31	- 1.38	4	-22	21	31.89	0.60 4 1904
2416788.5						-23	23	49.84	2.55 2 1904
2416789.0	16	43	56.05	- 0.65	1				1904
2416792.0	16	59	50.76	- 1.44	1				1904
2416792.5						-24	7	58.21	0.0 2 1904
2416797.8	17	30	54.52	0.02	4	-24	49	7.24	1.02 4 1904
2416800.8	17	47	4.43	- 2.20	6	-25	3	22.49	0.56 6 1904
2416803.3	18	0	34.10	- 2.63	3	-25	10	9.83	- 1.14 3 1904
2416806.6	18	18	23.03	- 0.87	5	-25	11	56.02	0.02 5 1904
2416813.0	18	52	47.12	- 1.29	1	-24	52	10.85	- 0.70 1 1904
2416822.3	19	41	55.99	- 1.80	3	-23	30	19.13	- 1.56 3 1904
2416829.3	20	17	51.07	- 1.61	3	-21	50	2.37	- 2.03 3 1904
2416836.2	20	52	5.12	- 0.92	5	-19	42	18.59	0.04 5 1904
2416843.0	21	24	34.06	- 1.12	2	-17	12	14.15	0.66 2 1904
2416846.0	21	38	29.93	1.50	1	-15	59	27.25	- 0.95 1 1905
2416854.5	22	16	39.27	- 0.31	2	-12	15	8.66	0.38 2 1905
2416858.8	22	35	14.68	- 2.82	6	-10	13	32.20	- 6.51 6 1905
2416864.1	22	57	32.01	- 1.27	7	- 7	38	1.50	- 0.79 7 1905
2416867.7	23	12	17.77	- 0.12	3	- 5	49	54.63	- 5.68 3 1905

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	H	M	S	"		°	'	"	"		
2416872.7	23	32	19.33	- 0.57	3	- 3	17	33.76	-13.08	3	1905
2416875.7	23	44	5.12	- 0.90	3	- 1	45	22.69	- 6.08	3	1905
2416879.0	23	56	48.90	- 0.42	4	- 0	3	52.75	- 0.02	4	1905
2416885.5	0	21	14.87	- 1.19	2	3	14	38.08	- 1.44	2	1905
2416889.5	0	35	50.96	- 1.19	2	5	14	49.37	- 0.65	2	1905
2416894.2	0	52	32.90	- 2.55	5	7	32	50.27	- 4.09	5	1905
2416898.5	1	7	20.85	- 1.22	2	9	35	9.78	- 0.69	2	1905
2416902.5	1	20	39.02	- 2.80	2	11	24	42.09	- 0.62	2	1905
2416907.0	1	35	0.32	- 0.36	1	13	22	10.22	0.77	1	1905
2416911.0	1	47	6.95	- 0.51	1	15	0	36.52	0.28	1	1905
2416917.7	2	5	39.81	- 2.18	3	17	30	40.80	- 0.17	3	1905
2416921.5	2	14	57.43	- 1.88	4	18	46	12.18	0.68	4	1905
2416925.3	2	23	7.87	- 4.45	3						1905
2416925.5						19	56	56.01	- 0.86	2	1905
2416928.3						20	40	29.43	0.42	3	1905
2416929.0	2	29	49.24	- 2.45	2						1905
2416934.8	2	37	16.83	- 3.28	4	21	59	32.01	- 1.16	4	1905
2416938.0	2	39	33.29	- 4.02	2	22	25	23.10	2.36	2	1905
2416941.0	2	40	21.22	- 1.94	2						1905
2416942.0						22	43	13.24	- 0.93	1	1905
2416944.7	2	39	26.24	- 1.45	3	22	45	6.38	- 0.66	3	1905
2416955.0	2	26	4.62	- 1.19	2	21	24	5.51	- 0.75	2	1905
2416967.0	2	0	10.01	- 0.79	1	17	10	34.08	0.12	1	1905
2416969.8	1	54	54.56	1.22	8	16	1	45.46	0.06	8	1905
2416974.0	1	48	42.40	- 3.02	4	14	23	44.73	0.54	3	1905
2416977.0						13	21	24.65	5.24	6	1905
2416977.3	1	45	31.85	- 1.43	7						1905
2416982.6	1	43	47.50	- 1.12	5	11	49	3.77	1.95	5	1905
2416985.5						11	15	4.46	1.02	2	1905
2416986.3	1	44	59.65	- 2.81	3						1905
2416990.8	1	48	55.49	- 2.73	5	10	37	24.61	- 0.13	5	1905
2416994.4	1	53	48.60	- 1.05	5	10	28	35.68	2.57	5	1905
2417000.3	2	4	39.86	- 0.85	3	10	39	7.81	- 0.73	3	1905
2417004.5	2	14	13.15	1.68	2	11	2	20.70	0.99	2	1905
2417008.5	2	24	30.59	0.13	2	11	34	2.28	0.78	2	1905
2417011.5	2	32	54.32	- 2.46	4	12	2	46.68	0.36	4	1905
2417014.4	2	41	31.59	0.65	5	12	33	51.56	2.95	5	1905
2417019.5	2	57	46.29	0.14	4	13	34	22.56	2.74	4	1905
2417024.0	3	13	8.22	- 2.29	1	14	31	50.42	1.06	1	1905
2417030.0	3	34	57.87	0.88	1	15	50	47.88	0.89	1	1905
2417034.7	3	53	0.82	- 0.90	3	16	51	57.56	- 0.55	3	1905
2417041.0	4	18	24.36	2.74	3	18	9	33.03	- 1.11	3	1905
2417044.3	4	32	12.83	- 0.07	3	18	46	58.95	0.16	3	1905
2417048.0	4	48	5.28	1.45	5	19	25	26.79	- 0.07	5	1905
2417053.6	5	12	50.08	2.39	5	20	15	8.01	- 2.12	5	1905
2417071.3	6	35	28.51	- 1.34	4	21	23	43.82	- 0.34	4	1905
2417074.5	6	50	54.94	- 0.98	4	21	19	15.63	1.24	4	1905
2417078.5	7	10	20.37	- 0.68	2	21	5	44.27	1.41	2	1905
2417082.0	7	27	24.59	- 0.64	4	20	46	32.99	0.42	4	1905
2417090.0	8	6	29.64	- 0.41	1	19	36	56.35	0.26	1	1905
2417096.6	8	38	35.84	1.30	5	18	13	8.00	1.48	5	1905
2417101.5	9	2	14.96	- 0.24	6	16	56	16.26	2.20	6	1905
2417104.0						16	12	29.75	0.26	4	1905
2417104.3	9	15	40.63	- 2.49	3						1905
2417109.0	9	38	3.93	1.58	3						1905

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	H	M	S	"		O	"	"	
2417109.5						14 26	7.17	0.78	6 1905
2417114.0						12 49	32.79	- 0.14	4 1905
2417114.7	10	4	56.23	1.77	3				1905
2417117.5	10	18	1.50	0.98	4	11 29	6.77	0.74	4 1905
2417124.3	10	49	31.37	0.90	3	8 41	15.88	- 0.16	3 1905
2417129.5	11	13	22.70	2.20	4	6 24	23.35	4.42	4 1905
2417133.6	11	32	5.10	- 2.44	5	4 32	17.89	0.85	5 1905
2417137.7	11	50	44.71	0.52	3	2 37	30.12	4.42	3 1905
2417142.8	12	13	56.39	1.52	4				1905
2417143.0						0 6	13.27	0.16	3 1905
2417148.5	12	39	55.52	0.72	4	- 2 32	16.95	- 0.50	4 1905
2417152.5	12	58	15.21	1.20	4	- 4 27	22.74	- 0.82	4 1905
2417156.3	13	15	46.56	2.63	3				1905
2417156.5						- 6 21	24.82	- 0.26	4 1905
2417160.3	13	34	22.31	0.78	3	- 8 8	2.80	- 1.09	3 1905
2417165.8	14	0	16.15	1.12	4	-10 37	53.92	6.58	4 1905
2417171.6	14	28	4.61	- 1.16	7	-13 8	14.62	0.21	7 1905
2417176.3	14	51	2.67	0.14	4	-15 2	24.09	- 0.12	4 1905
2417182.5	15	21	59.01	0.0	2	-17 19	59.13	0.49	2 1905
2417185.8	15	38	45.64	3.18	4	-18 26	12.16	1.08	4 1905
2417188.0	15	50	3.69	- 0.52	3	-19 7	20.59	0.74	3 1905
2417192.0	16	10	51.23	1.30	3	-20 15	29.69	0.99	3 1905
2417198.0	16	42	35.36	1.81	1	-21 40	15.34	1.44	1 1905
2417200.5	16	55	59.00	- 0.90	2	-22 8	56.99	1.05	2 1905
2417206.0	17	25	45.01	0.14	1	-22 57	24.27	0.10	1 1905
2417209.0	17	42	6.91	- 0.58	2	-23 14	59.72	0.76	2 1905
2417216.0	18	20	28.93	- 0.77	1	-23 30	57.28	1.15	1 1906
2417227.0	19	20	35.30	1.55	1	-22 44	17.31	3.34	1 1906
2417274.5	23	18	21.39	- 0.48	2	- 6 1	52.13	0.13	2 1906
2417277.0	23	29	51.08	- 0.27	1	- 4 47	21.93	- 0.56	1 1906
2417292.5	0	40	21.75	- 0.48	2	3 5	10.75	0.64	2 1906
2417297.0	1	0	49.99	1.08	1	5 21	38.37	- 0.96	1 1906
2417303.5	1	30	36.60	- 0.65	2	8 34	22.10	0.83	2 1906
2417306.5	1	44	28.74	- 2.57	2	10 0	41.99	- 0.31	2 1906
2417313.5	2	17	16.27	- 0.68	2	13 13	25.57	0.69	2 1906
2417318.5	2	41	8.31	- 0.59	2	15 21	43.25	0.21	2 1906
2417330.0	3	37	41.69	- 0.18	2	19 38	1.07	0.18	2 1906
2417335.5	4	5	35.18	- 1.15	2	21 17	19.87	1.32	2 1906
2417339.0	4	23	36.23	0.56	1	22 11	24.34	- 2.52	1 1906
2417345.0	4	54	54.65	- 0.14	1	23 26	29.73	1.32	1 1906
2417360.0	6	14	36.33	1.22	1	24 46	47.44	- 0.15	1 1906
2417363.0	6	30	35.02	3.68	1	24 43	37.00	0.33	1 1906
2417368.1	6	57	35.65	0.32	7				1906
2417368.3						24 22	15.30	- 2.84	6 1906
2417371.5	7	15	26.91	- 0.48	2	23 59	50.48	- 0.41	2 1906
2417376.0	7	38	49.23	- 2.64	2	23 16	31.09	- 1.67	2 1906
2417383.0	8	14	27.00	- 1.86	4	21 43	16.31	- 0.02	4 1906
2417388.3	8	40	43.70	- 1.25	3	20 13	19.84	- 0.68	3 1906
2417391.0						19 21	41.61	0.70	1 1906
2417391.5	8	56	16.50	- 1.39	2				1906
2417394.8	9	12	2.83	- 1.65	5	18 2	52.12	1.97	5 1906
2417397.5	9	24	45.22	- 0.64	4	17 2	48.35	0.02	4 1906
2417400.7	9	39	35.02	- 2.01	3	15 47	39.27	0.29	3 1906
2417409.7	10	20	2.32	- 0.33	3	11 56	29.32	18.79	3 1906
2417417.7	10	54	35.77	1.65	3	8 11	21.86	6.67	3 1906

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2417421.8	11	11	51.68	0.14	4	6	11	1.67	9.52	4	1906
2417424.8						4	41	22.98	5.30	4	1906
2417425.0	11	25	9.13	- 2.03	5						1906
2417431.0	11	49	42.05	0.13	2	1	33	30.46	10.00	2	1906
2417444.3	12	42	51.61	- 2.24	4	- 5	12	7.88	11.78	4	1906
2417448.7	13	0	11.67	- 2.84	3	- 7	23	54.29	7.52	3	1906
2417453.1	13	17	26.50	- 1.46	7	- 9	32	57.45	11.64	7	1906
2417458.0	13	36	33.31	- 2.33	6	-11	52	25.60	12.10	6	1906
2417462.5	13	54	1.80	- 2.06	4	-13	55	42.19	1.04	4	1906
2417465.5	14	5	38.16	- 0.96	4						1906
2417466.0						-15	27	40.69	7.49	5	1906
2417473.5	14	36	20.42	- 2.11	2	-18	31	47.98	- 1.80	2	1906
2417478.8	14	56	21.67	- 4.68	4	-20	29	22.71	0.52	4	1906
2417481.4	15	6	2.13	0.54	5	-21	22	48.53	4.49	5	1906
2417485.0	15	19	12.16	1.22	1	-22	31	52.00	2.90	1	1906
2417491.0	15	40	21.49	- 2.46	3	-24	13	27.10	0.10	3	1906
2417495.0	15	53	43.65	- 1.54	2	-25	11	10.15	0.96	2	1906
2417497.0	16	0	7.79	- 1.40	3	-25	36	55.93	0.31	3	1906
2417503.0	16	17	54.05	- 1.10	1	-26	41	20.33	0.44	1	1906
2417507.0	16	28	14.73	1.09	1	-27	13	8.19	4.06	1	1906
2417520.0	16	49	32.93	- 0.07	1	-27	49	27.01	2.26	1	1906
2417528.0	16	50	3.21	- 2.34	3	-27	11	55.81	- 9.40	3	1906
2417560.0	15	53	16.29	2.17	1	-17	57	6.22	- 3.02	1	1906
2417565.5	15	51	50.51	1.60	2	-16	55	45.44	- 2.74	2	1906
2417580.0	16	9	14.28	3.56	2	-16	28	3.99	- 3.12	2	1907
2417586.0	16	23	34.33	- 0.30	1						1907
2417586.5						-16	58	50.73	- 1.99	2	1907
2417591.0	16	37	54.92	2.58	3	-17	27	55.07	- 2.84	3	1907
2417598.5	17	2	43.66	1.51	2	-18	21	23.44	- 1.54	2	1907
2417602.5	17	17	19.28	1.39	2	-18	49	8.51	- 3.31	2	1907
2417606.0	17	30	45.25	- 0.76	5	-19	11	22.76	- 2.30	5	1907
2417608.0	17	38	41.02	0.14	1	-19	22	51.40	1.47	1	1907
2417614.3	18	4	42.50	1.25	3	-19	51	35.48	- 0.40	3	1907
2417619.0	18	24	59.72	1.71	2	-20	3	46.97	- 1.29	2	1907
2417622.0	18	38	15.35	1.12	2	-20	6	44.07	- 1.09	2	1907
2417627.5						-20	1	24.13	- 0.75	2	1907
2417628.0	19	5	20.91	0.01	1						1907
2417632.5	19	26	2.88	0.49	2	-19	43	40.12	0.44	2	1907
2417635.0	19	37	38.88	0.81	2	-19	30	2.82	- 1.56	2	1907
2417642.3	20	11	45.67	- 1.11	3	-18	31	36.05	- 0.94	3	1907
2417646.7	20	32	23.15	- 1.09	3	-17	43	3.53	0.95	3	1907
2417649.0	20	43	9.33	- 0.19	3	-17	13	49.05	0.26	3	1907
2417657.0	21	20	24.98	- 3.52	3	-15	12	21.14	- 0.43	3	1907
2417660.5	21	36	35.18	- 0.47	2	-14	10	9.51	- 0.03	2	1907
2417664.0	21	52	39.44	- 0.44	4	-13	2	55.00	0.40	4	1907
2417672.0	22	29	0.53	- 3.72	1	-10	12	14.61	- 0.33	1	1907
2417677.0	22	51	28.50	1.13	3	- 8	15	14.06	0.97	3	1907
2417684.8						- 5	0	26.84	- 0.60	4	1907
2417685.0	23	27	3.09	0.68	3						1907
2417689.6						- 2	54	59.68	- 0.18	5	1907
2417690.0	23	49	7.42	- 1.34	4						1907
2417692.7						- 1	32	23.34	0.47	3	1907
2417693.0	0	2	20.05	- 3.39	2						1907
2417699.3	0	30	4.82	0.38	3						1907
2417700.4						1	55	53.05	1.70	5	1907

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	H	M	S	"		°	'	"	"		
2417704.5						3	47	17.08	1.71	6	1907
2417704.6	0	53	29.75	- 0.07	5						1907
2417709.3	1	14	23.08	0.74	3	5	56	50.01	1.33	3	1907
2417712.0	1	26	27.42	- 1.32	3						1907
2417712.2						7	14	8.71	1.45	5	1907
2417717.3	1	50	21.71	0.23	3	9	27	22.62	1.23	3	1907
2417725.0	2	25	42.34	- 0.85	1	12	39	0.20	1.13	1	1907
2417733.0	3	3	24.33	- 0.32	6	15	40	57.81	1.34	5	1907
2417738.0	3	27	32.56	1.88	5	17	23	11.96	- 0.14	4	1907
2417741.0	3	42	14.61	- 0.87	3	18	19	33.10	- 0.57	3	1907
2417744.5	3	59	36.35	- 0.48	4	19	20	5.02	0.58	4	1907
2417747.6	4	15	10.11	- 0.45	5	20	8	38.19	1.43	5	1907
2417754.0	4	47	49.07	0.31	3	21	32	29.65	0.68	3	1907
2417759.0	5	13	45.82	2.29	3	22	21	25.40	0.92	3	1907
2417763.4	5	36	50.98	- 0.09	5	22	51	35.16	0.58	5	1907
2417768.0	6	1	10.22	- 0.32	7	23	9	38.33	0.85	7	1907
2417772.3	6	24	0.04	- 1.32	3	23	13	41.04	- 1.09	3	1907
2417775.3	6	39	56.75	- 0.02	4	23	9	5.91	- 0.46	4	1907
2417778.3						22	58	23.91	0.06	4	1907
2417778.7	6	57	59.88	2.72	3						1907
2417782.0	7	15	28.00	3.81	7	22	36	50.29	0.48	7	1907
2417787.0	7	41	46.57	2.00	4	21	53	16.73	- 1.00	4	1907
2417791.0	8	2	38.06	1.23	3	21	6	52.56	- 1.42	3	1907
2417794.0	8	18	8.44	0.76	3	20	25	37.01	- 0.09	3	1907
2417796.0	8	28	24.30	0.61	3	19	55	7.81	- 0.62	3	1907
2417801.3	8	55	17.74	0.31	3	18	23	28.13	- 0.09	3	1907
2417803.8	9	7	48.85	- 1.08	4	17	35	2.66	- 0.92	4	1907
2417811.0	9	43	15.89	1.29	2	14	58	53.38	- 1.48	2	1907
2417816.0	10	7	22.22	1.00	4	12	57	32.08	- 2.10	4	1907
2417844.0						- 0	24	14.72	0.88	1	1907
2417850.5	12	46	36.96	0.06	2	- 3	42	5.05	- 0.57	2	1907
2417855.7	13	10	28.69	0.64	3	- 6	18	34.49	0.03	3	1907
2417859.0	13	25	44.37	0.64	3	- 7	56	11.32	0.40	4	1907
2417865.0	13	53	48.37	0.31	3	-10	48	32.53	- 0.09	3	1907
2417868.6	14	10	53.24	- 0.56	5	-12	27	47.83	- 0.47	5	1907
2417872.3	14	28	39.91	- 1.84	4	-14	5	46.60	- 0.90	4	1907
2417879.0	15	1	30.45	- 0.78	3	-16	50	37.65	0.94	3	1907
2417885.0	15	31	41.30	- 1.33	2	-19	1	48.26	- 0.64	2	1907
2417890.3	15	58	58.15	- 0.17	3	-20	42	20.34	0.76	3	1907
2417893.7	16	16	45.68	- 1.78	3	-21	38	23.04	- 0.50	3	1907
2417896.0						-22	12	14.92	0.22	4	1907
2417896.3	16	30	30.77	- 0.85	3						1907
2417900.5	16	52	57.98	0.45	2	-23	8	33.63	0.57	2	1907
2417905.5	17	20	1.24	- 0.41	2	-23	54	51.68	- 0.54	2	1907
2417908.3	17	35	17.42	- 1.02	3	-24	12	57.98	- 1.04	3	1907
2417913.7	18	4	53.17	- 1.30	3	-24	31	29.86	0.05	3	1907
2417916.4	18	19	42.85	0.34	5	-24	32	34.59	- 2.10	5	1907
2417920.3	18	41	6.31	1.06	3	-24	24	22.24	1.59	3	1907
2417929.0						-23	25	20.59	3.89	1	1907
2417932.0	19	44	28.22	- 0.42	2	-22	52	27.96	- 0.24	2	1907
2417940.0	20	26	32.80	- 0.87	1	-20	55	12.56	0.26	1	1908
2417945.0	20	52	9.95	- 1.37	3	-19	21	58.35	- 1.66	3	1908
2417951.0	21	22	9.27	- 0.73	3	-17	12	11.99	- 0.76	3	1908
2417955.3	21	43	7.86	- 1.14	7						1908
2417955.4						-15	26	9.86	- 1.47	8	1908

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	H	M	S	"		°	'	"	
2417962.5						-12	18	48.33	- 2.76 4 1908
2417962.7	22	18	16.13	- 0.55	3				1908
2417967.0	22	38	10.73	0.17	3	-10	11	28.23	- 1.44 3 1908
2417970.6	22	54	35.68	- 1.19	5	- 8	25	47.22	- 2.66 5 1908
2417975.0	23	14	23.32	0.73	3	- 6	12	55.62	- 2.28 4 1908
2417978.0	23	27	44.09	0.92	4	- 4	40	31.76	- 0.74 4 1908
2417983.6	23	52	22.90	- 0.27	5	- 1	45	30.53	- 0.47 5 1908
2417991.0	0	24	34.72	- 0.43	3	2	7	41.67	- 1.42 3 1908
2417996.3	0	47	30.47	- 0.83	3	4	53	36.78	- 2.42 3 1908
2418000.3	1	4	48.32	- 1.37	3	6	57	3.44	0.35 3 1908
2418004.2	1	21	42.08	- 3.11	5	8	55	5.87	- 1.23 5 1908
2418009.3	1	43	53.27	- 1.02	3	11	24	54.14	- 1.80 3 1908
2418012.4	1	57	26.40	- 2.06	5	12	52	51.00	0.04 5 1908
2418015.3	2	10	10.39	- 1.56	3				1908
2418015.8						14	26	3.68	- 1.46 4 1908
2418021.5	2	37	35.82	- 0.14	2	16	53	39.13	0.71 2 1908
2418026.0	2	57	40.90	- 0.17	3	18	41	20.42	0.19 3 1908
2418031.0						20	30	41.76	- 0.93 2 1908
2418035.3	3	39	37.40	- 2.28	4	21	55	15.55	- 0.26 4 1908
2418039.1	3	56	51.95	- 1.56	7	23	2	5.54	- 1.69 7 1908
2418045.0	4	23	36.72	- 3.40	5	24	30	16.89	- 0.83 5 1908
2418047.8	4	36	14.52	- 3.96	5	25	5	13.58	- 0.04 5 1908
2418053.3	5	0	48.03	- 1.86	4	26	0	33.31	0.34 4 1908
2418060.3	5	31	15.04	- 1.73	3	26	45	21.66	- 0.10 3 1908
2418063.0	5	42	38.67	- 1.00	3	26	55	5.36	- 1.34 2 1908
2418067.0	5	59	2.42	- 1.22	1	27	2	4.85	- 0.17 1 1908
2418074.6	6	28	7.65	- 4.47	7	26	52	18.78	0.24 7 1908
2418081.3	6	50	47.81	- 2.79	6	26	21	33.46	1.10 6 1908
2418089.4						25	22	22.20	1.41 5 1908
2418089.8	7	14	12.10	- 1.58	4				1908
2418095.0	7	24	47.32	- 3.28	4	24	31	13.47	0.78 4 1908
2418098.8	7	30	21.26	- 5.64	4	23	53	21.19	- 2.18 4 1908
2418103.4	7	34	17.19	- 4.45	5	23	5	30.77	1.95 5 1908
2418108.0	7	34	48.46	- 5.14	3	22	16	34.62	1.09 3 1908
2418111.0	7	33	12.25	- 2.29	3	21	44	34.11	- 0.42 3 1908
2418116.4						20	47	35.13	- 0.49 5 1908
2418116.5	7	26	18.23	- 0.66	6				1908
2418122.7	7	13	12.41	- 0.12	3	19	43	26.12	0.28 3 1908
2418139.0	6	32	44.43	1.68	3	17	35	48.73	2.53 3 1908
2418143.0	6	26	37.20	- 0.98	2	17	20	26.84	1.65 1 1908
2418146.5	6	23	24.72	- 1.04	4	17	13	6.32	1.38 4 1908
2418152.0						17	11	47.29	0.74 4 1908
2418152.4	6	22	36.67	- 0.47	5				1908
2418157.5	6	26	16.35	- 0.38	2	17	19	46.71	0.45 2 1908
2418162.3	6	32	57.78	0.22	6	17	30	59.48	0.88 6 1908
2418166.2	6	40	25.07	0.34	6	17	40	54.05	1.62 6 1908
2418170.7	6	50	58.08	- 0.52	3	17	51	8.31	0.09 3 1908
2418175.3	7	3	35.94	- 0.72	4	17	58	17.37	0.78 4 1908
2418184.3	7	32	34.35	- 0.07	3	17	55	49.11	- 1.40 3 1908
2418188.4						17	45	17.34	- 0.85 5 1908
2418188.5	7	47	36.00	1.46	4				1908
2418193.4	8	6	3.65	2.46	5	17	23	4.13	- 0.49 5 1908
2418198.6	8	26	32.16	1.52	5	16	48	10.21	0.49 5 1908
2418202.2	8	41	8.13	1.30	5				1908
2418202.3						16	15	40.96	1.47 6 1908

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	H	M	S	"		°	'	"	"		
2418207.7	9	3	56.65	0.23	3						1908
2418208.0						15	12	58.54	0.40	3	1908
2418210.0	9	13	37.37	2.18	4	14	47	21.76	- 0.08	4	1908
2418214.2						13	47	37.35	- 0.38	5	1908
2418214.3	9	31	52.63	2.28	4						1908
2418216.5	9	41	16.78	0.58	2	13	11	34.27	- 0.47	2	1908
2418222.5	10	7	4.88	0.88	4	11	26	57.60	- 1.24	4	1908
2418228.5						9	28	10.14	0.36	4	1908
2418229.0	10	35	12.80	2.98	3						1908
2418232.0						8	12	56.59	- 1.02	4	1908
2418232.3	10	49	32.50	0.80	3						1908
2418237.5	11	12	10.26	2.15	2	6	7	3.79	- 1.20	2	1908
2418242.0	11	31	47.84	1.03	1						1908
2418243.0						3	53	17.71	- 0.28	2	1908
2418245.5	11	47	5.79	0.57	2	2	50	20.21	- 2.06	2	1908
2418250.8	12	10	20.84	1.74	5	0	33	32.66	- 0.31	5	1908
2418254.7	12	27	32.72	- 0.47	3	- 1	9	16.72	1.14	3	1908
2418258.5	12	44	24.21	- 0.98	2	- 2	50	32.76	- 1.43	2	1908
2418263.2	13	5	25.66	0.34	5	- 4	56	10.90	- 1.25	5	1908
2418267.0	13	22	35.54	2.39	5						1908
2418267.3						- 6	45	12.88	- 1.00	6	1908
2418271.8	13	44	31.38	1.28	4	- 8	43	10.35	- 1.72	4	1908
2418278.5						-11	32	55.61	- 2.38	4	1908
2418278.7	14	16	37.52	2.60	3						1908
2418283.8	14	40	51.48	0.72	4	-13	39	56.16	- 1.52	4	1908
2418288.5	15	3	37.17	0.88	2	-15	25	29.86	- 1.05	2	1908
2418293.7						-17	12	48.35	- 0.10	3	1908
2418294.5	15	33	18.53	1.51	2						1908
2418299.0	15	56	2.75	2.17	1	-18	50	6.86	- 0.78	1	1908
2418306.0	16	32	10.12	1.48	2	-20	36	47.44	- 1.03	2	1909
2418309.0	16	47	54.44	0.69	1	-21	14	1.66	0.21	1	1909
2418313.0	17	9	6.07	0.85	2	-21	55	10.22	- 0.38	2	1909
2418320.7	17	50	25.38	0.10	3	-22	45	11.68	- 2.06	3	1909
2418324.7	18	12	3.58	- 0.14	3	-22	55	17.86	- 0.76	3	1909
2418328.0	18	29	56.44	0.74	3	-22	55	15.07	1.16	3	1909
2418332.5	18	54	17.76	0.80	4						1909
2418332.8						-22	41	39.21	- 0.51	5	1909
2418336.3	19	14	46.72	2.30	4	-22	21	39.32	1.32	4	1909
2418340.6	19	37	47.79	1.68	5						1909
2418341.0						-21	41	46.95	1.08	4	1909
2418344.3	19	57	25.46	1.82	3	-21	5	9.00	- 0.87	3	1909
2418349.3	20	23	37.60	2.74	3	-19	56	38.90	1.02	3	1909
2418354.5	20	50	25.46	0.30	2	-18	29	55.73	0.30	4	1909
2418357.7	21	6	40.09	- 0.10	3	-17	29	19.07	- 1.06	3	1909
2418363.3						-15	31	13.16	- 0.76	3	1909
2418364.0	21	38	4.63	3.20	2						1909
2418365.7	21	46	25.25	2.11	3	-14	36	20.73	0.33	3	1909
2418368.5	22	0	2.90	1.10	4	-13	29	25.74	0.70	4	1909
2418372.4						-11	51	29.03	2.08	5	1909
2418372.5	22	19	16.70	1.18	4						1909
2418376.3	22	37	18.50	2.68	3	-10	8	41.93	0.95	3	1909
2418381.0	22	59	19.43	3.06	4	- 7	59	24.27	- 0.04	4	1909
2418384.3	23	14	37.25	0.91	6	- 6	25	41.64	2.25	6	1909
2418388.5	23	33	56.25	0.51	2	- 4	23	46.79	- 0.10	2	1909
2418393.5	23	56	45.97	0.72	2	- 1	55	52.25	1.56	2	1909

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	H	M	S	"		°	'	"	
2418398.0	0	17	13.17	0.27	2	0	18	35.37	2.02 2 1909
2418403.0	0	39	55.46	0.57	3	2	48	5.68	- 0.88 4 1909
2418407.0	0	58	7.80	1.26	3	4	46	53.62	0.76 3 1909
2418413.0	1	25	36.65	- 0.33	3	7	41	53.95	1.21 3 1909
2418438.5						18	24	54.12	- 0.25 2 1909
2418439.0	3	29	55.65	- 0.84	1				1909
2418445.3	4	1	49.02	0.05	3	20	31	40.09	- 0.57 3 1909
2418450.0	4	26	4.53	3.05	2	21	44	23.35	0.74 2 1909
2418455.0	4	52	15.90	0.79	1	22	46	57.06	- 1.04 1 1909
2418459.5	5	16	7.13	0.64	2	23	29	24.44	- 0.38 2 1909
2418467.5	5	58	57.93	- 0.35	2	24	10	28.90	- 2.09 2 1909
2418475.5	6	41	58.74	- 0.06	4	24	6	3.67	- 2.34 4 1909
2418480.0	7	6	3.16	0.14	3	23	43	30.23	- 0.61 3 1909
2418483.5	7	24	38.36	- 1.97	2	23	16	9.58	- 0.57 2 1909
2418487.5	7	45	41.14	- 2.06	2	22	34	44.75	- 0.20 2 1909
2418490.3	8	0	16.26	0.86	4	21	59	31.88	0.34 4 1909
2418495.0	8	24	26.04	0.70	4	20	49	27.09	1.22 4 1909
2418498.5	8	42	8.93	- 0.90	2	19	48	48.87	0.35 2 1909
2418507.3	9	25	34.61	- 0.05	3	16	47	45.30	- 0.46 4 1909
2418510.7	9	41	55.24	- 1.13	3	15	28	5.06	- 0.26 3 1909
2418515.5	10	4	35.86	- 0.35	2	13	27	43.85	0.34 2 1909
2418523.5	10	41	26.80	- 2.09	2	9	50	0.63	1.17 2 1909
2418530.7	11	13	47.19	- 0.99	3	6	20	5.47	1.25 3 1909
2418536.0	11	37	13.49	- 0.54	3	3	39	45.95	1.14 3 1909
2418538.8	11	49	31.05	- 0.27	5	2	13	45.37	0.80 5 1909
2418543.3	12	9	11.20	0.66	4	- 0	5	32.82	0.34 4 1909
2418547.3	12	26	37.36	1.51	3	- 2	9	44.24	- 0.02 3 1909
2418552.3	12	48	25.25	0.08	4	- 4	44	16.72	0.58 4 1909
2418557.3	13	10	18.51	0.59	3				1909
2418558.0						- 7	37	50.43	1.06 2 1909
2418564.2	13	40	48.69	- 1.08	6	-10	41	7.43	- 0.32 6 1909
2418567.3						-12	9	44.70	0.09 3 1909
2418567.5	13	55	34.37	- 0.14	2				1909
2418571.0	14	11	22.51	- 2.16	2	-13	52	12.79	1.80 2 1909
2418578.8	14	47	13.54	- 2.76	4	-17	13	53.31	- 0.52 4 1909
2418587.0	15	25	57.90	- 1.02	3	-20	19	37.59	0.48 3 1909
2418590.5	15	42	50.58	0.24	2	-21	29	12.14	- 0.79 2 1909
2418594.5	16	2	22.09	- 1.00	2	-22	40	41.82	0.38 2 1909
2418599.7	16	28	5.22	- 1.40	7	-23	59	52.52	0.11 7 1909
2418603.5	16	47	4.19	- 1.26	4	-24	47	12.06	- 0.70 4 1909
2418607.5	17	7	9.83	- 0.65	2	-25	26	52.53	- 0.30 2 1909
2418612.0	17	29	49.42	- 2.19	2	-25	58	39.25	- 0.24 2 1909
2418616.5	17	52	26.89	0.88	2	-26	16	31.40	0.34 2 1909
2418619.3	18	6	27.22	0.47	3	-26	20	34.63	0.55 3 1909
2418624.0	18	29	44.79	- 0.04	1	-26	15	16.52	- 0.44 1 1909
2418634.5	19	20	6.16	0.74	2				1909
2418636.0						-24	55	40.95	- 0.98 1 1909
2418639.5	19	42	52.94	- 0.04	2	-24	15	59.24	- 0.47 2 1909
2418648.5	20	21	16.77	- 1.92	4	-22	4	55.76	- 0.92 4 1909
2418655.7						-19	55	20.55	- 0.96 6 1909
2418655.8	20	49	27.93	- 3.86	4				1909
2418659.5	21	2	33.81	- 3.18	4	-18	40	17.86	- 0.88 4 1909
2418662.3	21	11	52.70	- 2.89	3	-17	42	49.07	- 0.31 3 1909
2418672.0	21	39	34.47	- 1.72	1	-14	16	1.78	- 1.35 1 1910
2418678.0	21	52	32.18	- 2.84	3	-12	8	27.03	- 0.48 4 1910

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	H	M	S	"		°	'	"	"		
2418682.8	22	0	8.41	- 4.11	9	-10	31	1.40	- 4.05	9	1910
2418687.0	22	4	27.79	- 2.94	4	- 9	11	54.93	0.08	4	1910
2418693.0	22	6	19.37	- 3.16	4	- 7	34	25.73	- 2.36	4	1910
2418697.8						- 6	34	38.87	- 1.59	6	1910
2418698.2	22	3	25.92	- 2.46	5						1910
2418701.0	22	0	7.31	- 1.58	3	- 6	6	6.89	- 3.12	3	1910
2418704.5	21	54	23.40	- 2.52	2	- 5	46	33.25	1.05	2	1910
2418707.3	21	48	43.07	- 1.68	3	- 5	40	13.77	0.57	3	1910
2418711.5	21	38	56.83	- 0.17	2	- 5	46	3.07	1.84	2	1910
2418720.8	21	16	52.19	4.36	5	- 6	52	35.16	- 0.69	5	1910
2418725.5	21	8	24.92	2.02	4	- 7	42	5.02	- 1.64	4	1910
2418728.3	21	4	53.68	3.67	3	- 8	12	27.80	- 0.03	3	1910
2418734.6	21	1	40.88	3.04	5	- 9	15	34.76	0.29	5	1910
2418739.2	21	3	25.71	2.19	5						1910
2418739.3						- 9	53	1.33	3.70	6	1910
2418743.3	21	7	37.60	3.00	3	-10	16	13.88	1.68	3	1910
2418749.0	21	16	59.99	0.32	4	-10	33	52.96	0.70	4	1910
2418753.6	21	27	4.17	3.42	5	-10	34	15.94	1.30	5	1910
2418761.0	21	46	55.60	3.15	3	-10	8	36.92	1.06	3	1910
2418763.5	21	54	26.83	0.47	2	- 9	52	46.44	0.13	2	1910
2418769.6	22	14	7.10	5.59	5	- 8	59	35.60	3.18	5	1910
2418775.5	22	34	30.54	1.68	2	- 7	50	0.56	0.40	2	1910
2418781.0	22	54	23.98	- 0.13	2	- 6	30	40.84	- 0.47	2	1910
2418785.0	23	9	16.98	2.10	3	- 5	25	7.06	- 0.33	3	1910
2418788.5						- 4	22	51.37	1.82	4	1910
2418788.7	23	23	18.22	1.84	3						1910
2418791.0	23	32	7.61	1.52	3	- 3	35	51.86	1.77	3	1910
2418795.3	23	48	49.10	1.32	4	- 2	10	39.75	0.88	4	1910
2418798.3	0	0	36.02	1.51	3	- 1	8	20.04	0.64	3	1910
2418803.0	0	19	15.79	3.32	2	0	33	12.46	0.03	3	1910
2418805.3	0	28	28.81	2.25	3	1	24	20.10	1.97	3	1910
2418811.0	0	51	34.32	0.76	1	3	33	53.63	0.27	1	1910
2418816.0	1	12	8.24	0.50	4	5	29	40.61	- 0.70	4	1910
2418819.3	1	25	53.05	0.68	4	6	46	29.47	1.04	4	1910
2418826.0	1	54	15.77	1.91	2						1910
2418826.3						9	28	16.32	0.97	3	1910
2418829.3											1910
2418830.0	2	8	29.31	2.74	3	10	52	3.01	0.46	4	1910
2418837.4	2	44	9.79	0.49	5	13	33	0.81	0.42	5	1910
2418843.4	3	11	20.91	2.30	5	15	34	21.98	0.20	5	1910
2418848.5	3	35	0.08	0.13	2	17	9	2.95	- 0.27	2	1910
2418851.5	3	49	9.46	0.71	2	18	0	27.91	0.38	2	1910
2418854.5	4	3	29.51	0.13	2	18	48	18.67	0.17	2	1910
2418865.5	4	57	29.38	0.38	2	21	8	30.73	0.58	2	1910
2418872.0	5	30	18.89	0.51	2	22	1	33.25	0.0	2	1910
2418879.5	6	8	48.43	1.43	2	22	31	54.98	0.52	2	1910
2418885.5	6	39	53.13	1.53	2	22	31	0.64	- 0.78	2	1910
2418890.0	7	3	14.46	0.74	1	22	15	17.53	- 0.43	1	1910
2418895.0	7	29	8.03	0.98	1	21	42	42.39	- 0.76	1	1910
2418899.7	7	53	20.00	1.04	3	20	57	51.13	- 0.76	3	1910
2418902.3	8	6	38.22	1.04	3	20	27	17.09	0.28	3	1910
2418913.0	9	0	33.34	- 0.41	1	17	40	53.46	- 0.71	1	1910
2418917.3						16	17	9.47	- 0.98	4	1910
2418917.7	9	23	44.98	1.09	3						1910
2418924.3	9	55	46.26	- 0.58	4	13	42	56.55	- 0.46	4	1910

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	H	M	S	"		O	"	"	"		
2418928.0	10	13	27.12	0.63	5	12	13	32.14	- 0.27	5	1910
2418933.7	10	40	20.67	1.13	3	9	46	45.70	- 0.14	3	1910
2418936.7	10	54	21.17	3.03	3	8	25	42.36	- 1.94	3	1910
2418941.5	11	16	35.68	2.45	2	6	11	35.93	- 0.01	2	1910
2418944.0	11	28	6.71	1.78	3	4	59	56.08	- 0.21	3	1910
2418948.3	11	47	50.84	2.24	4	2	54	27.39	- 2.10	4	1910
2418953.0	12	9	21.32	- 0.86	4						1910
2418953.3						0	26	12.46	- 0.57	3	1910
2418957.5	12	29	56.89	- 0.27	2	- 1	39	14.27	- 1.43	2	1910
2418962.5	12	52	54.15	0.86	2	- 4	8	17.10	- 1.88	2	1910
2418965.3	13	5	49.30	1.82	3	- 5	31	4.05	- 1.54	3	1910
2418970.3	13	29	3.82	2.06	3	- 7	56	39.90	- 1.20	3	1910
2418974.5	13	48	48.41	0.58	2	- 9	55	45.55	- 1.15	2	1910
2418984.5	14	36	52.64	2.30	2	-14	21	26.68	- 1.71	2	1910
2418990.0	15	4	4.36	1.95	2	-16	33	2.97	- 1.34	2	1910
2419045.5	20	1	36.54	0.08	2	-21	46	13.04	- 2.14	2	1911
2419055.0	20	51	14.42	- 0.74	1	-19	7	25.94	- 1.53	1	1911
2419061.4	21	23	36.58	- 1.50	5	-16	51	58.59	- 1.21	5	1911
2419067.7	21	54	37.32	- 0.61	3	-14	19	52.48	- 1.52	3	1911
2419069.0	22	0	55.18	- 0.72	2	-13	46	27.93	- 1.16	2	1911
2419075.7	22	32	51.99	- 1.92	3	-10	45	1.22	- 1.51	3	1911
2419083.8	23	10	30.10	2.18	4	- 6	49	10.51	- 0.20	4	1911
2419088.0	23	29	40.99	- 2.09	2	- 4	41	54.61	- 2.33	2	1911
2419099.0	0	19	18.27	0.06	1	0	59	38.17	1.28	1	1911
2419104.5	0	43	59.23	- 0.98	4	3	50	50.20	- 2.64	4	1911
2419111.0	1	13	15.02	0.49	1						1911
2419112.0						7	40	1.77	- 1.36	2	1911
2419116.3	1	37	18.27	0.54	3	9	47	25.16	- 0.40	3	1911
2419120.0	1	54	15.13	- 3.31	2	11	33	42.90	- 3.85	2	1911
2419125.0	2	17	25.33	- 1.23	2	13	51	29.93	- 0.95	2	1911
2419130.0	2	40	56.49	0.61	1	16	1	0.05	- 0.37	1	1911
2419134.0	3	0	1.66	- 1.70	1	17	37	35.52	- 1.26	1	1911
2419137.5	3	16	56.45	0.01	2	18	56	21.43	- 1.97	2	1911
2419142.0	3	38	58.29	- 0.46	1	20	28	55.02	- 0.27	1	1911
2419146.0	3	58	49.42	2.05	1	21	42	12.56	0.61	1	1911
2419151.0	4	23	57.41	0.45	2	23	0	52.84	- 1.40	2	1911
2419155.0	4	44	17.23	0.22	1	23	52	49.32	- 0.89	1	1911
2419158.0	4	59	38.10	- 0.34	1	24	25	1.23	- 0.97	1	1911
2419163.5	5	27	54.48	- 1.81	2	25	8	26.33	0.24	2	1911
2419167.3	5	47	28.25	- 1.32	6	25	26	18.16	- 0.83	6	1911
2419173.0	6	16	42.40	- 0.96	1	25	34	19.23	- 0.87	1	1911
2419179.3	6	48	39.20	0.19	3	25	17	13.53	1.63	3	1911
2419188.0	7	31	39.06	- 0.71	1	24	10	31.53	0.20	1	1911
2419189.8	7	40	19.91	- 0.66	4	23	50	51.08	0.92	4	1911
2419195.0	8	4	54.24	- 1.54	3	22	43	31.40	- 0.35	3	1911
2419203.0	8	41	4.00	0.15	1	20	32	28.77	1.97	1	1911
2419214.5	9	29	8.49	- 1.06	2	16	36	27.56	0.93	2	1911
2419217.0	9	38	56.46	- 1.70	3	15	39	18.54	0.68	3	1911
2419222.5	9	59	37.78	1.44	4	13	28	8.22	2.22	4	1911
2419226.5	10	13	53.15	- 1.96	4	11	49	3.02	2.24	4	1911
2419230.5	10	27	26.85	- 1.62	4	10	7	49.39	- 0.34	4	1911
2419236.0	10	44	53.33	- 2.62	4	7	46	49.03	1.16	4	1911
2419239.5	10	55	12.82	0.82	2	6	16	54.47	2.12	2	1911
2419244.0	11	7	30.89	1.00	3	4	22	14.23	1.21	3	1911
2419248.3	11	18	8.05	0.83	3	2	34	58.14	1.44	3	1911

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	H	M	S	"		°	'	"	"		
2419257.7	11	36	40.78	- 0.21	3						1911
2419258.0						- 1	10	24.74	3.31	3	1911
2419262.5	11	43	8.26	- 0.65	2	- 2	42	29.71	0.35	2	1911
2419266.5	11	46	38.78	- 2.46	4	- 3	54	40.36	2.00	4	1911
2419271.0						- 5	2	7.34	0.94	1	1911
2419272.5	11	48	16.14	- 0.42	2						1911
2419278.7	11	44	51.49	- 1.80	3	- 6	13	2.02	2.68	3	1911
2419281.5	11	41	35.14	- 0.68	2	- 6	21	39.24	1.19	2	1911
2419287.0	11	32	22.82	- 1.63	2	- 6	7	55.39	1.00	2	1911
2419291.0	11	24	0.70	3.21	1	- 5	32	20.24	1.02	1	1911
2419298.5	11	7	33.34	- 1.63	2	- 3	39	12.87	0.42	2	1911
2419304.7						- 1	43	41.02	0.83	3	1911
2419305.5	10	55	32.75	- 1.75	2						1911
2419308.5	10	52	16.86	- 2.04	2	- 0	34	44.11	- 0.13	2	1911
2419312.7	10	49	58.14	- 1.40	3	0	33	0.26	- 0.50	3	1911
2419316.0	10	50	2.85	2.29	2	1	17	16.66	- 1.51	2	1911
2419320.7	10	52	55.21	- 0.78	3	2	4	15.75	- 0.80	3	1911
2419330.5	11	7	56.12	0.17	2	2	38	8.98	- 1.71	2	1911
2419336.0	11	20	33.98	1.35	1	2	21	41.76	- 0.53	1	1911
2419342.7	11	38	57.54	2.70	3	1	31	53.90	- 1.30	3	1911
2419348.5	11	59	15.94	2.08	2	0	26	5.95	- 0.92	2	1911
2419351.0	12	5	13.01	1.35	1						1911
2419351.5						- 0	15	3.56	- 0.82	2	1911
2419355.3						- 1	13	14.52	- 1.65	3	1911
2419355.5	12	20	42.14	2.14	2						1911
2419358.5	12	31	25.55	1.50	2	- 2	6	48.18	- 1.24	2	1911
2419363.0	12	48	2.28	2.22	2	- 3	28	2.38	- 1.94	2	1911
2419368.0	13	7	9.44	0.88	1	- 5	4	41.51	- 0.91	1	1911
2419377.0	13	43	9.46	- 1.13	1						1911
2419378.0						- 8	30	31.79	- 0.98	2	1911
2419383.0	14	8	14.56	- 0.10	3	-10	15	54.86	- 2.11	3	1911
2419386.0	14	21	6.28	1.81	2	-11	18	48.24	- 1.30	2	1911
2419401.0	15	28	32.40	3.15	1	-16	13	30.91	- 0.40	1	1912
2419411.5	16	18	47.85	2.56	2	-19	1	51.51	- 0.18	2	1912
2419420.5	17	3	42.14	1.87	2	-20	47	53.35	0.11	2	1912
2419427.0	17	36	57.63	1.59	1	-21	37	34.79	0.85	1	1912
2419431.5	18	0	16.33	0.55	2	-21	57	24.80	0.10	2	1912
2419436.3	18	25	18.39	0.68	3	-22	4	43.65	0.85	3	1912
2419441.3	18	51	28.20	1.50	4						1912
2419441.7						-21	55	27.62	1.40	3	1912
2419449.5	19	34	16.49	2.53	2	-21	9	12.43	1.23	2	1912
2419455.0	20	2	42.41	0.18	2	-20	13	49.45	0.90	2	1912
2419460.0	20	28	14.86	0.38	2	-19	7	59.23	0.88	2	1912
2419463.5	20	45	55.13	2.62	2	-18	13	38.01	1.13	2	1912
2419467.5	21	5	52.88	0.61	2	-17	3	43.66	- 0.17	2	1912
2419469.0	21	13	18.37	3.35	1						1912
2419470.0						-16	16	2.74	0.24	2	1912
2419478.0	21	57	3.98	- 1.26	1	-13	25	0.54	0.59	1	1912
2419482.0	22	16	6.49	0.21	1	-11	50	14.22	0.16	1	1912
2419490.0	22	53	30.21	- 1.78	2	- 8	25	51.41	0.45	2	1912
2419497.5	23	27	53.97	- 0.61	2	- 5	0	41.18	- 1.65	2	1912
2419504.0	23	57	22.51	3.74	4	- 1	55	58.15	0.10	4	1912
2419508.0	0	15	25.87	1.20	4	- 0	0	35.84	- 0.58	4	1912
2419510.3	0	25	48.24	- 1.04	3	1	5	58.42	- 0.78	3	1912
2419513.0	0	37	59.31	2.37	5	2	24	6.40	- 0.42	5	1912

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2419517.7	0	59	14.69	7.43	3	4	39	23.17	- 0.61	3	1912
2419525.7	1	35	43.13	2.01	3	8	24	34.76	1.63	3	1912
2419530.0	1	55	34.83	3.48	2	10	21	14.02	0.86	2	1912
2419533.5	2	11	54.96	0.52	2						1912
2419534.3						12	13	37.63	0.26	3	1912
2419538.3	2	34	36.90	0.55	3	13	53	30.67	- 0.55	3	1912
2419544.5	3	4	29.85	1.24	2	16	17	35.75	1.48	2	1912
2419551.3	3	38	3.81	2.39	3	18	37	31.06	2.23	3	1912
2419559.0	4	17	6.39	6.07	2	20	48	39.40	- 1.06	3	1912
2419564.5	4	45	37.32	1.92	4	22	2	1.76	- 1.18	4	1912
2419577.0	5	51	55.03	4.06	2	23	37	15.05	- 0.01	2	1912
2419582.0	6	18	44.54	0.95	1	23	45	30.03	0.36	1	1912
2419600.5	7	57	11.27	0.40	2						1912
2419601.0						21	38	23.09	- 0.81	1	1912
2419638.0	11	0	34.80	- 0.16	1	7	52	22.00	- 0.84	1	1912
2419650.5	12	3	58.29	2.38	2	1	37	15.36	1.05	2	1912
2419665.7	13	5	38.16	- 2.42	3	- 6	9	46.35	1.44	3	1912
2419670.0	13	25	12.17	- 0.42	3	- 8	18	34.97	1.21	3	1912
2419674.5	13	45	53.13	- 1.44	2	-10	29	51.48	1.09	2	1912
2419677.7						-12	0	25.26	- 0.21	3	1912
2419678.3	14	3	33.78	3.02	4						1912
2419682.0	14	20	59.20	- 0.74	2	-13	57	36.13	0.74	2	1912
2419686.2	14	41	3.46	- 1.83	5	-15	46	12.34	1.15	6	1912
2419693.7	15	17	44.52	0.52	3	-18	42	36.53	1.51	3	1912
2419700.5	15	51	58.40	0.16	2	-20	59	12.69	2.22	2	1912
2419705.3	16	16	40.90	1.11	3	-22	20	7.57	0.71	3	1912
2419709.5	16	38	38.30	- 1.15	2	-23	19	15.72	- 0.41	2	1912
2419712.5	16	54	29.67	- 1.22	2	-23	54	22.53	1.61	2	1912
2419719.5	17	31	55.17	0.90	2	-24	51	58.80	1.41	2	1912
2419723.5	17	53	28.06	- 0.07	2	-25	8	55.75	0.74	2	1912
2419727.0	18	12	20.96	0.01	2	-25	13	58.06	1.70	2	1912
2419735.0	18	55	19.08	0.14	2	-24	51	9.81	- 0.42	2	1912
2419739.0	19	16	33.75	- 1.61	1	-24	22	7.49	- 1.68	1	1912
2419744.5	19	45	21.88	- 0.82	2	-23	23	42.38	- 0.88	2	1912
2419754.0	20	33	35.98	- 0.55	2	-20	56	18.14	- 0.41	2	1912
2419757.0	20	48	21.65	- 0.49	2	-19	58	44.03	- 2.90	2	1912
2419765.3	21	27	54.64	- 1.78	3	-16	55	42.55	- 0.88	3	1912
2419771.0	21	53	58.21	- 0.99	3	-14	32	49.35	- 1.37	3	1913
2419776.7	22	19	9.42	- 0.36	3	-11	58	41.44	- 0.87	3	1913
2419780.7						-10	5	10.14	- 1.99	3	1913
2419781.0	22	37	36.00	0.44	4						1913
2419783.3	22	47	16.48	1.23	3	- 8	49	28.67	- 2.70	3	1913
2419790.0	23	14	43.39	- 2.36	1						1913
2419790.5						- 5	14	10.98	- 1.46	2	1913
2419798.7	23	48	50.78	0.10	3	- 1	3	36.28	- 1.18	3	1913
2419803.8	0	8	5.52	- 1.41	5	1	32	23.74	- 1.97	5	1913
2419807.5	0	21	42.34	- 1.48	2	3	24	33.14	- 1.71	2	1913
2419811.3	0	35	22.14	- 1.68	4	5	18	8.02	- 2.24	4	1913
2419817.8	0	57	54.84	- 3.49	5	8	26	42.94	- 1.54	5	1913
2419821.5	1	10	13.22	- 1.29	2	10	9	46.95	- 0.74	2	1913
2419827.0	1	27	40.62	- 1.02	1						1913
2419833.0	1	45	20.12	- 3.62	4	15	3	4.23	- 1.42	4	1913
2419838.8	2	0	37.82	- 1.62	6	17	11	6.85	- 2.38	6	1913
2419842.3	2	8	46.93	- 2.22	3	18	20	16.94	- 1.91	3	1913
2419846.0	2	16	19.03	- 2.99	7	19	25	43.77	- 2.38	7	1913

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2419854.5	2	28	18.38	- 3.59	2	21	20	6.48	- 1.73	2	1913
2419858.0	2	30	38.00	- 2.28	1	21	49	39.77	0.13	1	1913
2419860.0	2	31	10.84	- 2.29	3	22	1	3.62	- 1.51	3	1913
2419869.0	2	26	5.23	- 2.76	1	21	53	52.62	- 1.63	1	1913
2419874.0	2	18	11.90	- 1.57	1	21	2	27.82	- 2.16	1	1913
2419887.5	1	49	29.67	1.07	2	16	19	52.48	- 2.70	2	1913
2419898.0	1	36	1.21	1.69	1	12	25	19.86	0.88	1	1913
2419905.0	1	35	45.71	- 1.30	1	10	44	41.27	0.08	1	1913
2419910.0	1	39	42.87	1.44	3	10	6	41.17	1.35	3	1913
2419913.0	1	43	32.71	- 1.82	2	9	56	42.41	2.35	2	1913
2419916.7	1	49	36.35	0.59	3						1913
2419917.5						9	57	43.47	0.62	2	1913
2419922.7	2	2	7.06	0.31	3	10	19	19.30	0.85	3	1913
2419933.5	2	31	12.43	2.47	2	11	54	51.35	1.06	2	1913
2419938.8	2	47	55.15	0.96	4	12	58	10.89	1.16	4	1913
2419943.5	3	3	51.75	3.29	2	13	59	24.11	1.87	2	1913
2419946.0	3	12	43.72	- 0.33	2	14	33	1.80	0.03	2	1913
2419959.0	4	2	39.19	1.39	3	17	26	39.97	0.07	3	1913
2419965.0	4	27	35.67	1.54	1	18	38	57.01	1.29	1	1913
2419973.5	5	4	43.04	0.82	2	20	4	14.92	0.17	2	1913
2419978.0	5	25	7.49	0.87	1	20	38	50.71	- 0.05	1	1913
2419984.7	5	56	18.63	1.52	3	21	13	59.45	0.68	3	1913
2419986.8	6	6	15.08	2.52	4	21	20	35.21	0.42	4	1913
2419994.8						21	24	47.87	- 0.76	5	1913
2419995.3	6	47	5.96	1.14	4						1913
2420001.0	7	14	52.53	- 1.13	1	21	4	4.70	0.09	1	1913
2420006.3	7	40	50.04	0.05	3	20	29	11.04	- 0.71	3	1913
2420013.5	8	16	4.95	1.94	2	19	16	31.11	- 1.24	2	1913
2420021.3	8	53	58.88	2.12	4	17	26	16.65	- 1.72	4	1913
2420025.5	9	14	11.58	0.50	4	16	14	11.95	- 1.68	4	1913
2420031.5	9	42	47.40	2.67	2	14	17	4.74	- 0.93	2	1913
2420035.3	10	0	43.18	- 0.12	3	12	55	1.34	- 0.87	3	1913
2420040.0	10	22	42.57	0.68	4	11	5	59.16	- 2.19	5	1913
2420042.7	10	35	15.10	2.13	3	9	59	58.74	- 1.39	3	1913
2420048.0	10	59	41.80	2.19	2	7	44	12.42	- 2.26	2	1913
2420051.0	11	13	26.87	2.30	2	6	24	14.36	- 1.50	2	1913
2420056.5	11	38	32.59	- 0.02	4	3	52	55.50	- 2.06	4	1913
2420059.5	11	52	11.87	2.09	2	2	28	22.68	- 1.89	2	1913
2420065.3	12	18	35.17	0.42	3	- 0	17	39.67	- 1.47	3	1913
2420070.5	12	42	18.99	2.52	2	- 2	47	49.52	- 1.91	2	1913
2420075.8	13	6	39.15	3.20	5	- 5	20	12.58	- 2.97	5	1913
2420081.5	13	33	5.82	3.21	2	- 8	1	12.25	- 1.30	2	1913
2420085.0	13	49	31.12	2.08	3	- 9	37	36.10	- 1.96	3	1913
2420090.0	14	13	16.82	- 0.16	3	-11	50	44.99	- 1.28	3	1913
2420095.5	14	39	53.82	- 0.54	2	-14	9	15.81	- 1.56	2	1913
2420100.5	15	4	34.72	0.72	4	-16	6	5.46	- 0.76	4	1913
2420104.5	15	24	40.50	2.73	2	-17	32	9.53	- 0.42	2	1913
2420107.0	15	37	23.65	1.42	1	-18	22	13.42	- 1.61	1	1913
2420111.5	16	0	35.94	1.98	2	-19	44	17.23	- 0.62	2	1913
2420119.5	16	42	46.99	3.37	2	-21	41	54.91	- 0.54	2	1913
2420123.0	17	1	34.11	1.51	2	-22	20	51.45	- 0.92	2	1913
2420139.5	18	31	41.15	- 0.25	2	-23	29	59.80	- 0.03	2	1914
2420142.5						-23	21	26.83	0.85	2	1914
2420143.3	18	52	30.19	0.69	3						1914
2420147.5	19	15	23.96	0.04	2	-22	52	48.49	1.23	2	1914

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2420150.5	19	31	38.84	0.95	2	-22 27 10.17	- 0.01	2	1914
2420192.0	23	0	3.37	1.90	1	- 7 57 36.50	1.48	1	1914
2420202.0	23	46	4.85	1.78	1	- 3 0 7.07	- 1.41	1	1914
2420233.0	2	8	2.63	- 0.54	2	12 21 52.34	- 1.57	2	1914
2420240.0	2	41	20.77	0.73	3	15 23 49.24	- 0.24	3	1914
2420243.0	2	55	52.12	1.67	2	16 36 17.99	- 0.20	2	1914
2420245.0	3	5	38.26	0.35	3	17 22 31.96	- 0.88	3	1914
2420251.0	3	35	23.31	1.99	3	19 30 12.19	2.03	3	1914
2420255.0	3	55	35.18	1.87	1	20 45 6.51	0.99	1	1914
2420268.0	5	2	59.89	- 0.20	4	23 43 12.20	- 0.54	4	1914
2420272.0	5	24	9.74	0.06	4	24 15 49.13	- 1.02	4	1914
2420274.7	5	38	30.92	0.43	3	24 31 32.38	- 0.71	3	1914
2420281.0	6	12	5.57	- 0.25	2	24 48 0.27	- 1.24	2	1914
2420288.0	6	49	16.62	0.0	3	24 32 52.78	- 0.66	3	1914
2420295.0	7	25	58.68	- 0.99	2	23 43 15.64	0.18	2	1914
2420300.2	7	52	45.04	- 1.05	5	22 45 6.04	- 0.54	5	1914
2420304.3	8	13	29.49	0.05	3	21 47 14.86	1.68	3	1914
2420308.7	8	35	20.48	- 1.39	3	20 34 7.13	- 0.59	3	1914
2420313.5	8	58	39.69	- 0.34	2	19 2 25.44	0.18	2	1914
2420316.0	9	10	35.15	0.68	2	18 10 9.20	1.97	2	1914
2420322.0						15 53 19.03	0.40	2	1914
2420323.0	9	43	9.47	1.42	1				1914
2420326.8	10	0	20.96	- 0.26	4	13 53 43.58	2.52	4	1914
2420330.0	10	14	34.49	- 2.29	3	12 29 39.69	1.47	3	1914
2420337.0	10	44	57.50	0.96	1	9 15 47.54	0.30	1	1914
2420344.0	11	14	26.07	- 0.10	1	5 51 29.71	0.37	1	1914
2420350.5	11	41	7.31	- 0.30	2	2 35 54.85	1.53	2	1914
2420357.3	12	8	28.72	- 1.67	7	- 0 51 29.14	2.28	7	1914
2420363.0	12	31	4.74	2.02	1	- 3 45 13.55	1.37	1	1914
2420372.0	13	6	19.01	- 0.31	1	- 8 14 35.00	1.21	1	1914
2420378.5	13	31	30.09	- 0.70	4	-11 21 35.78	2.98	4	1914
2420384.0	13	52	38.69	- 0.76	2	-13 52 35.70	2.59	2	1914
2420392.5	14	24	57.59	0.82	8	-17 29 9.92	1.41	8	1914
2420398.4	14	46	59.80	0.0	5				1914
2420398.5						-19 47 7.57	0.56	6	1914
2420402.5	15	2	0.06	- 0.92	4	-21 11 7.79	2.02	4	1914
2420405.3	15	12	2.59	- 0.12	3	-22 5 50.01	- 0.66	3	1914
2420407.5	15	19	47.18	- 0.46	4	-22 46 16.08	1.38	4	1914
2420414.0						-24 32 9.22	1.55	1	1914
2420415.0	15	44	53.81	0.58	2				1914
2420424.3	16	11	55.28	- 1.49	3	-26 35 9.74	- 0.26	3	1914
2420428.0	16	20	50.04	- 2.15	3	-27 4 52.74	0.76	3	1914
2420433.3	16	31	6.77	- 2.44	3	-27 32 57.54	2.82	3	1914
2420440.5						-27 40 56.17	0.96	4	1914
2420440.7	16	39	14.93	- 0.73	3				1914
2420448.0	16	38	38.29	- 1.89	3	-27 5 37.84	2.44	3	1914
2420461.0	16	17	0.03	- 2.54	1	-23 58 59.72	- 0.71	1	1914
2420468.3	15	59	52.60	0.14	3				1914
2420468.5						-21 16 45.24	1.09	2	1914
2420470.7						-20 28 41.09	0.28	3	1914
2420471.3	15	53	41.64	1.39	3				1914
2420478.5	15	43	35.75	1.78	2				1914
2420479.3						-17 48 58.70	- 3.17	3	1914
2420484.0						-16 50 57.51	1.21	3	1914
2420484.5	15	41	24.98	1.91	2				1914

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	H	M	S	"		°	'	"	"		
2420496.0	15	52	19.55	1.19	2	-16	2	24.31	0.58	2	1914
2420505.0	16	11	56.85	1.97	5	-16	35	22.27	- 1.79	5	1915
2420508.5	16	21	36.86	1.16	2	-16	57	28.03	- 0.55	2	1915
2420512.2						-17	23	55.35	- 2.11	6	1915
2420512.4	16	33	29.96	3.23	7						1915
2420518.4	16	53	45.05	1.36	5	-18	11	6.89	- 0.34	5	1915
2420522.5	17	8	46.38	2.25	2	-18	41	41.62	- 1.09	2	1915
2420526.8	17	25	25.00	0.56	4	-19	11	8.76	- 1.60	4	1915
2420533.5	17	52	54.82	3.16	4	-19	48	0.08	- 2.40	4	1915
2420539.5	18	18	51.68	5.22	4	-20	7	59.56	- 1.38	4	1915
2420545.5	18	45	45.11	2.70	4	-20	12	45.72	1.98	4	1915
2420548.5	18	59	27.91	0.86	2	-20	8	50.08	1.09	2	1915
2420553.5	19	22	36.76	0.90	4	-19	52	19.35	- 0.52	4	1915
2420560.5						-19	7	25.54	1.13	2	1915
2420562.0	20	2	28.91	1.79	1						1915
2420564.7	20	15	12.35	1.21	3	-18	28	8.50	2.68	3	1915
2420567.5	20	28	24.11	0.13	2	-17	56	53.76	0.30	2	1915
2420572.0	20	49	34.18	1.11	1	-16	58	20.29	1.24	1	1915
2420578.7	21	20	52.78	1.61	3	-15	13	14.06	0.69	3	1915
2420582.7	21	39	24.70	3.13	3	-14	0	58.58	0.17	3	1915
2420587.0	21	59	10.68	2.15	3						1915
2420587.3						-12	29	51.51	1.64	4	1915
2420589.0	22	8	18.87	- 0.98	2	-11	54	10.83	0.78	2	1915
2420596.3	22	41	22.99	2.10	3						1915
2420596.5						- 9	5	14.91	1.36	4	1915
2420601.0	23	2	26.87	1.13	2						1915
2420601.8						- 6	56	13.97	0.78	4	1915
2420605.8	23	23	48.38	- 0.32	4	- 5	14	40.95	0.40	4	1915
2420608.5	23	35	46.12	2.43	2	- 4	4	28.92	0.79	2	1915
2420614.5	0	2	15.34	1.16	2	- 1	24	55.15	0.34	2	1915
2420617.0	0	13	16.57	2.34	3	- 0	17	23.58	- 0.02	3	1915
2420624.8	0	47	42.95	1.44	4	3	14	57.07	0.32	4	1915
2420628.5	1	4	8.23	0.61	2	4	55	27.58	1.05	2	1915
2420632.5	1	21	59.63	1.88	2	6	43	1.36	- 0.21	2	1915
2420636.0	1	37	43.79	1.34	2	8	15	40.90	- 0.28	2	1915
2420643.7	2	12	49.70	- 1.18	3	11	32	13.65	0.59	3	1915
2420652.3	2	53	2.27	0.66	3	14	54	36.56	1.56	3	1915
2420657.5	3	17	57.89	1.72	4	16	45	12.63	1.18	4	1915
2420661.3	3	36	29.61	1.26	3	17	59	14.09	- 0.26	3	1915
2420665.5	3	57	16.98	1.16	4	19	13	32.75	0.08	4	1915
2420669.7	4	18	23.50	0.95	3	20	19	10.35	0.24	3	1915
2420678.0	5	0	58.32	0.43	1	22	0	26.78	0.29	1	1915
2420683.7	5	30	46.76	3.05	3	22	46	1.25	- 0.09	3	1915
2420687.5	5	50	50.20	2.45	2	23	4	48.62	0.51	2	1915
2420694.5	6	28	0.01	0.86	2	23	14	10.11	1.37	2	1915
2420698.0	6	46	36.50	0.95	1	23	6	21.38	- 0.36	1	1915
2420703.0	7	13	7.22	1.11	1						1915
2420704.0						22	33	43.42	- 0.40	2	1915
2420709.0	7	44	41.65	0.10	2	21	48	16.92	- 1.03	2	1915
2420715.0	8	15	52.13	2.26	1	20	32	46.69	- 1.64	1	1915
2420721.4	8	48	32.26	0.96	5	18	48	44.69	- 0.98	5	1915
2420727.0	9	16	33.68	- 1.38	1	16	59	38.15	- 0.26	1	1915
2420731.0	9	36	14.85	1.07	1	15	32	26.73	- 1.02	2	1915
2420737.0	10	5	15.79	- 0.41	2	13	8	58.63	0.55	2	1915
2420783.0	13	37	36.04	- 0.78	1	- 9	10	58.69	1.13	1	1915

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2420789.5	14	8	14.70	- 2.46	2	-12	13	32.84	1.15	2	1915
2420799.0	14	54	17.57	0.52	3	-16	17	14.58	1.47	3	1915
2420805.0	15	24	16.90	- 0.40	1	-18	32	33.48	- 2.26	1	1915
2420817.7	16	30	11.07	- 0.92	3	-22	16	38.08	1.47	3	1915
2420834.0	17	58	29.04	0.78	1	-24	30	26.80	0.03	1	1915
2420840.0	18	31	24.64	- 0.99	3	-24	30	34.51	0.66	3	1915
2420845.5	19	1	28.52	0.16	2	-24	6	55.64	- 1.03	2	1915
2420848.0	19	15	3.03	1.22	2	-23	48	45.88	- 0.48	2	1915
2420855.0	19	52	35.55	- 0.28	1	-22	34	14.83	- 0.75	1	1915
2420860.0	20	18	52.80	1.27	1	-21	20	45.01	0.51	1	1915
2420869.5	21	7	21.16	1.71	2	-18	19	36.25	- 1.07	2	1916
2420875.0	21	34	27.93	- 1.71	2	-16	13	7.30	- 1.84	2	1916
2420879.3	21	55	10.86	- 1.04	3	-14	24	56.92	- 1.02	3	1916
2420884.7	22	20	37.54	- 0.16	3	-11	59	21.40	- 1.37	3	1916
2420888.2						-10	20	4.88	- 2.30	5	1916
2420888.3	22	37	15.91	0.30	4						1916
2420892.8	22	57	44.52	0.56	4	- 8	4	48.53	- 3.20	4	1916
2420896.2	23	13	0.18	- 2.86	5	- 6	21	57.91	- 1.90	5	1916
2420903.0	23	43	5.28	- 1.90	5	- 2	51	16.33	- 2.77	5	1916
2420907.3	0	1	52.49	0.08	4						1916
2420907.6						- 0	26	35.24	- 3.11	5	1916
2420912.5	0	24	25.59	0.17	2	2	7	54.45	- 0.76	2	1916
2420915.5						3	42	4.97	- 0.79	2	1916
2420916.0	0	39	32.66	0.87	1						1916
2420918.5	0	50	19.64	- 0.99	2	5	15	34.66	- 0.48	2	1916
2420922.5	1	7	35.29	1.95	2	7	18	37.65	- 1.23	2	1916
2420927.5	1	29	12.73	1.22	2	9	48	51.42	- 0.21	2	1916
2420933.0	1	53	7.20	- 1.22	1	12	27	46.69	- 2.94	1	1916
2420938.0	2	15	0.49	- 0.33	3	14	45	2.85	- 2.11	3	1916
2420947.0	2	54	49.60	0.37	1	18	30	8.63	- 0.68	1	1916
2420953.0	3	21	39.99	- 1.80	3	20	41	29.32	- 3.08	3	1916
2420956.0	3	35	9.40	- 1.95	2	21	40	49.01	- 1.82	2	1916
2420960.4	3	54	59.17	- 1.30	5	22	59	32.20	- 3.24	5	1916
2420964.7	4	14	20.89	- 4.52	3	24	6	27.44	- 0.92	3	1916
2420972.0	4	46	56.52	- 3.21	2	25	36	10.73	- 1.37	2	1916
2420980.5	5	23	49.90	- 4.04	8	26	41	49.44	- 2.40	8	1916
2420985.0	5	42	34.67	- 1.46	1	26	59	49.40	- 0.61	2	1916
2420990.0	6	2	29.10	- 2.63	1	27	6	45.88	- 1.97	1	1916
2420995.0	6	21	8.33	- 1.78	1	27	0	55.12	- 1.55	1	1916
2421001.6	6	43	16.42	- 3.65	8	26	35	44.28	- 0.76	8	1916
2421005.7	6	55	15.97	- 3.33	3	26	11	27.49	- 2.22	3	1916
2421008.5	7	2	33.08	- 1.22	2	25	51	42.41	0.55	2	1916
2421013.5	7	13	27.79	- 1.57	2	25	10	59.65	- 0.41	2	1916
2421016.7	7	18	51.27	- 2.03	3	24	42	2.06	0.19	3	1916
2421021.2	7	24	2.02	- 4.56	6	23	58	29.68	- 0.91	6	1916
2421025.8	7	26	5.15	- 2.20	4	23	11	44.36	0.38	4	1916
2421028.7	7	25	32.86	- 4.56	3	22	41	32.29	- 0.61	3	1916
2421036.5	7	16	55.16	- 1.82	4	21	19	5.01	0.54	4	1916
2421039.5	7	11	2.67	- 1.73	2	20	47	15.78	0.33	2	1916
2421043.7	7	1	2.68	- 2.25	3	20	3	15.88	- 1.51	3	1916
2421052.3	6	38	10.61	- 0.87	3	18	41	10.41	- 0.85	3	1916
2421057.2	6	26	47.73	0.22	5	18	4	42.77	0.76	5	1916
2421060.5	6	20	48.89	- 0.04	2	17	46	18.90	1.73	2	1916
2421065.4	6	15	5.77	0.0	5	17	28	57.26	1.01	5	1916
2421070.4	6	13	23.82	- 1.79	5	17	22	52.63	2.10	5	1916

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2421073.7	6	14	29.45	- 1.05	6	17	24	14.05	2.01	6	1916
2421077.7	6	17	59.09	- 0.42	3	17	30	8.77	0.71	3	1916
2421081.0	6	22	29.41	- 1.09	2	17	37	24.89	1.13	2	1916
2421085.8	6	31	21.54	0.65	5	17	49	41.19	0.11	5	1916
2421091.0	6	43	38.72	0.69	2	18	2	18.52	- 1.10	2	1916
2421097.7	7	2	51.81	0.81	3	18	12	27.47	- 0.80	3	1916
2421101.0	7	13	28.95	1.13	2	18	13	19.26	- 0.61	2	1916
2421106.0	7	30	44.93	0.50	3	18	7	51.85	- 1.51	3	1916
2421108.0	7	37	59.93	1.10	1	18	3	8.84	0.98	1	1916
2421113.6	7	59	9.58	2.59	5	17	41	10.52	- 0.27	5	1916
2421119.5	8	22	34.71	2.47	2	17	3	7.87	- 0.27	2	1916
2421126.5	8	51	27.77	4.10	4	15	56	54.79	0.14	4	1916
2421129.5	9	4	6.34	4.40	4	15	21	24.95	- 2.60	4	1916
2421133.0	9	18	59.90	2.36	2	14	34	44.48	- 0.93	2	1916
2421136.0	9	31	51.44	1.65	3	13	50	17.78	- 0.66	3	1916
2421144.5	10	8	35.62	2.38	8	11	23	19.14	- 2.32	8	1916
2421148.4	10	25	32.54	3.11	5	10	6	13.64	- 0.96	5	1916
2421154.2	10	50	48.73	3.29	5	8	1	33.96	- 2.26	5	1916
2421159.5	11	13	57.13	- 1.43	2	5	58	32.88	- 1.56	2	1916
2421167.2						2	47	33.25	- 2.15	5	1916
2421167.3	11	48	6.59	2.54	4						1916
2421170.0	12	4	28.05	1.56	3						1916
2421170.5						1	22	19.47	- 2.24	4	1916
2421175.5	12	24	13.74	3.78	4	- 0	49	27.82	- 5.24	4	1916
2421182.0	12	53	8.78	1.92	2	- 3	43	22.78	- 2.55	2	1916
2421185.0	13	6	36.80	- 1.25	1	- 5	3	48.48	- 0.37	1	1916
2421190.7	13	32	28.64	- 1.33	3	- 7	35	23.50	- 1.25	3	1916
2421212.0	15	13	25.20	- 0.65	2	-16	9	15.50	0.44	2	1916
2421234.0	17	6	31.91	1.85	1	-21	52	0.19	0.22	1	1917
2421239.0	17	33	17.49	- 0.39	1	-22	30	34.17	- 0.72	1	1917
2421252.0	18	43	38.08	1.13	1	-22	51	9.81	- 0.10	1	1917
2421268.5	20	11	49.03	1.07	2	-20	30	22.58	- 2.57	2	1917
2421290.0	22	0	15.67	0.92	3	-13	28	43.39	0.47	3	1917
2421298.0	22	38	27.98	1.18	1	-10	2	16.45	0.88	1	1917
2421305.0	23	11	8.15	- 1.16	1	- 6	47	19.45	0.14	1	1917
2421312.0	23	43	18.14	- 0.42	1	- 3	23	21.81	1.33	1	1917
2421322.5	0	31	3.86	- 0.68	2	1	50	9.80	1.29	2	1917
2421331.0	1	9	46.69	- 1.68	3	6	2	18.36	- 1.49	3	1917
2421354.5						16	27	53.10	1.78	2	1917
2421356.0	3	7	52.66	0.83	1						1917
2421358.5	3	20	14.00	0.54	2	17	55	44.59	0.89	2	1917
2421361.0	3	32	42.51	2.55	2	18	46	55.10	0.47	2	1917
2421373.7	4	37	50.59	- 0.45	3	22	15	21.66	- 2.37	3	1917
2421378.0	5	0	29.25	0.38	3	23	3	58.15	- 1.65	3	1917
2421383.0	5	27	5.49	- 0.12	3	23	45	3.27	- 0.17	3	1917
2421385.0	5	37	47.75	0.71	1	23	56	39.98	- 0.22	1	1917
2421394.3	6	27	46.41	- 1.07	3	24	13	24.01	- 0.48	3	1917
2421397.0	6	42	16.37	- 2.29	2	24	6	38.92	- 0.27	2	1917
2421406.3	7	31	47.23	- 1.13	3	23	4	1.12	0.09	3	1917
2421415.0	8	17	1.63	- 0.92	5	21	13	3.54	- 0.09	5	1917
2421429.3						16	35	42.52	- 0.76	3	1917
2421429.5	9	29	9.75	- 0.83	2						1917
2421433.3	9	47	20.60	- 1.08	4						1917
2421433.6						14	53	9.59	1.36	5	1917
2421437.0	10	4	46.00	- 2.02	4	13	26	56.24	1.46	4	1917

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2421449.5	11	1	50.67	- 1.90	4	7	39	8.02	0.30	4	1917
2421453.3	11	18	45.50	- 1.63	3	5	46	11.60	- 0.76	3	1917
2421458.0	11	39	28.76	- 2.19	1	3	23	32.02	1.15	1	1917
2421476.0	12	57	58.72	- 0.07	1	- 5	52	33.48	0.10	1	1917
2421484.0	13	33	7.75	- 1.86	1	- 9	52	24.02	- 0.34	1	1917
2421493.0	14	13	26.32	- 0.39	1	-14	6	31.72	0.21	1	1917
2421496.5	14	29	24.11	- 1.07	2	-15	39	2.55	3.07	2	1917
2421501.0						-17	31	38.01	1.49	1	1917
2421504.0	15	4	14.28	- 0.30	2	-18	42	10.83	3.03	2	1917
2421509.0	15	27	58.03	0.69	1	-20	30	49.93	1.60	1	1917
2421520.5	16	24	1.04	- 2.77	2	-23	51	25.92	0.62	2	1917
2421524.5	16	43	54.34	- 0.44	2	-24	42	57.75	0.47	2	1917
2421530.0	17	11	25.78	0.50	1	-25	36	57.40	1.00	1	1917
2421539.0	17	56	28.37	0.36	1	-26	21	21.19	- 0.87	1	1917
2421550.0	18	50	20.95	- 1.63	1	-26	0	28.14	- 0.54	1	1917
2421556.5	19	20	51.48	- 1.78	2	-25	11	9.74	- 2.53	2	1917
2421566.3	20	3	55.18	- 3.01	3	-23	11	14.12	- 1.25	3	1917
2421569.0	20	15	1.47	- 2.08	2	-22	29	51.85	- 1.61	2	1917
2421574.0	20	34	35.02	- 0.25	1	-21	5	17.92	- 0.99	1	1917
2421581.0	20	59	29.16	- 2.27	3	-18	52	55.90	- 0.47	3	1917
2421583.5	21	7	35.36	0.04	2	-18	2	45.63	- 0.95	2	1917
2421590.0	21	26	23.76	- 2.64	1	-15	48	16.32	- 0.15	1	1917
2421602.3	21	51	7.74	- 4.68	3	-11	36	23.61	- 0.46	4	1918
2421612.0	21	57	36.03	- 2.05	2	- 8	47	52.29	1.19	2	1918
2421616.5	21	55	47.74	- 2.12	4	- 7	48	33.57	- 0.80	4	1918
2421621.0	21	50	46.36	- 4.96	2	- 7	5	59.41	- 2.63	2	1918
2421623.8	21	46	8.02	- 4.36	5	- 6	49	9.55	- 2.57	5	1918
2421627.5	21	38	31.27	- 2.01	2	- 6	39	4.03	- 1.22	2	1918
2421632.5						- 6	46	59.52	- 2.81	2	1918
2421633.0	21	25	16.19	- 0.25	1						1918
2421636.3	21	17	6.21	- 2.49	3	- 7	7	29.99	- 1.63	3	1918
2421641.6	21	5	19.10	- 0.29	5	- 7	51	5.84	- 1.97	5	1918
2421645.3	20	58	57.11	0.0	3	- 8	27	12.07	1.07	3	1918
2421652.5	20	52	37.88	0.71	2	- 9	37	33.39	- 1.89	2	1918
2421662.5	20	57	47.89	1.14	4	-10	48	47.35	1.10	4	1918
2421667.4	21	5	25.89	0.34	5	-11	5	58.97	1.05	5	1918
2421671.3	21	13	25.05	1.58	3	-11	10	13.12	3.07	3	1918
2421674.6	21	21	17.39	- 0.20	5	-11	7	6.25	2.68	5	1918
2421679.0	21	33	8.02	1.42	4	-10	53	16.73	- 1.02	4	1918
2421696.0	22	28	48.61	0.48	1	- 8	20	13.33	0.43	1	1918
2421711.0	23	25	1.11	- 0.61	1	- 4	14	51.05	- 0.02	1	1918
2421716.0	23	44	31.89	- 1.23	1	- 2	35	42.95	- 1.04	1	1918
2421721.5	0	6	19.83	0.04	2	- 0	39	12.81	- 0.45	2	1918
2421724.0	0	16	20.71	2.20	1	0	15	49.67	1.01	1	1918
2421730.3	0	41	50.94	- 0.43	3						1918
2421731.0						2	54	50.08	0.66	2	1918
2421735.5	1	3	12.83	0.0	4	4	39	34.76	0.90	4	1918
2421740.7	1	24	53.62	- 0.59	3	6	41	30.77	0.61	3	1918
2421743.8	1	37	59.18	0.50	4	7	54	1.85	- 0.46	4	1918
2421750.0	2	4	35.22	- 0.50	4	10	17	5.53	0.66	4	1918
2421752.7	2	16	21.47	- 0.02	3	11	17	58.77	0.92	3	1918
2421757.5	2	37	34.78	- 1.22	2	13	3	7.02	0.79	2	1918
2421761.7	2	56	28.80	- 1.51	3	14	30	59.38	0.85	3	1918
2421766.0	3	16	10.26	1.23	3	15	56	0.91	- 0.64	3	1918
2421769.7	3	33	23.86	- 0.29	3	17	4	30.94	0.76	3	1918

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2421772.7	3	47	33.90	0.24	3	17	56	26.59	1.30	3	1918
2421777.5						19	11	58.16	0.16	2	1918
2421778.0	4	13	1.72	1.22	1						1918
2421779.0						19	33	30.88	0.48	1	1918
2421780.0	4	22	46.62	1.30	2						1918
2421789.0	5	7	30.62	0.85	2	21	28	46.19	1.46	2	1918
2421794.0	5	32	53.24	- 1.16	3	22	6	2.32	0.28	3	1918
2421800.0	6	3	42.87	1.14	1	22	31	10.08	- 0.53	1	1918
2421805.2	6	30	38.76	0.65	5	22	34	52.00	0.45	5	1918
2421808.0	6	45	11.36	- 0.66	2	22	29	43.24	- 0.08	2	1918
2421811.0	7	0	46.48	- 2.34	1	22	18	37.18	- 1.30	1	1918
2421817.6	7	34	58.54	- 0.69	5	21	34	6.53	0.20	5	1918
2421820.8	7	51	27.51	0.28	4	21	2	42.94	- 0.32	4	1918
2421828.5	8	30	42.01	0.96	2	19	22	7.10	- 0.06	2	1918
2421835.0	9	3	14.99	0.49	1	17	31	23.60	- 1.81	1	1918
2421848.5	10	8	55.01	1.39	2	12	37	20.21	- 0.01	2	1918
2421855.0	10	39	38.02	0.48	2	9	50	57.67	- 0.01	2	1918
2421861.0	11	7	34.33	0.16	3	7	6	45.63	- 0.16	3	1918
2421864.5						5	27	17.13	- 1.17	2	1918
2421865.0	11	26	1.96	0.73	1						1918
2421869.5	11	46	41.50	0.51	2						1918
2421871.0						2	17	28.47	- 0.50	1	1918
2421884.0	12	53	7.32	- 0.31	1	- 4	10	4.71	- 1.29	1	1918
2421891.5	13	27	52.74	0.27	2	- 7	49	52.49	- 1.40	2	1918
2421897.0	13	53	45.65	0.99	1	-10	25	23.58	- 0.98	1	1918
2421907.0						-14	47	59.94	- 1.93	1	1918
2421912.0	15	6	47.91	- 0.80	1	-16	46	3.00	0.15	1	1918
2421958.0	19	13	20.13	- 0.30	1	-23	23	0.10	- 0.67	1	1919
2421966.5	19	59	10.53	- 0.06	2	-21	52	53.51	0.93	2	1919
2421970.0	20	17	42.12	- 0.04	1	-21	1	45.38	0.02	1	1919
2421976.0	20	48	53.50	- 0.44	1	-19	16	39.90	- 0.59	1	1919
2421998.0	22	36	48.04	- 1.25	1	-10	21	22.29	0.05	1	1919
2422002.0	22	55	26.92	0.09	1	- 8	25	53.60	0.74	1	1919
2422029.0	0	57	34.22	- 1.52	1	5	24	46.16	- 1.08	1	1919
2422044.0	2	5	51.10	0.38	1	12	45	0.88	0.67	1	1919
2422050.0	2	33	52.43	- 0.65	1	15	24	30.98	0.18	1	1919
2422056.0						17	50	34.60	0.53	1	1919
2422071.3	4	17	48.47	0.26	3	22	44	43.24	- 0.40	3	1919
2422077.0	4	46	42.44	0.69	1	23	59	57.72	- 0.60	1	1919
2422087.5	5	40	33.00	0.27	2	25	22	47.58	- 0.58	2	1919
2422092.5	6	6	11.22	- 1.00	4	25	35	42.60	0.16	4	1919
2422099.4	6	41	13.34	- 0.83	5	25	25	15.14	1.19	5	1919
2422103.5	7	1	43.09	- 1.22	2	25	3	49.87	0.31	2	1919
2422106.7	7	17	29.48	- 1.51	3	24	39	31.96	0.88	3	1919
2422109.0	7	28	41.23	- 1.35	3	24	18	6.32	1.45	3	1919
2422114.5	7	54	54.29	0.0	4	23	14	4.57	- 1.18	4	1919
2422121.0	8	24	43.34	- 2.71	5	21	37	9.38	0.40	5	1919
2422126.0	8	46	41.82	- 2.08	6	20	8	43.60	0.64	6	1919
2422128.8	8	58	36.72	- 2.38	4	19	14	33.62	1.04	4	1919
2422131.4	9	9	25.02	- 2.77	5	18	21	34.01	1.05	5	1919
2422138.3	9	36	50.40	- 2.53	3	15	50	4.14	1.14	3	1919
2422142.0	9	50	45.91	- 1.13	2	14	23	27.20	- 0.75	2	1919
2422150.0	10	18	52.02	- 0.65	2	11	7	28.01	2.35	2	1919
2422157.0	10	41	0.19	- 3.42	5	8	10	37.20	2.86	5	1919
2422165.5	11	4	22.39	- 2.52	2	4	36	35.26	1.95	2	1919

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	H	M	S	"		° ' "	"		
2422171.0	11	17	5.04	- 3.15	2	2 22 53.87	2.93	2	1919
2422172.3	11	19	46.04	- 4.36	3	1 52 16.32	2.55	3	1919
2422178.3	11	30	19.61	- 4.05	3	- 0 22 1.18	0.45	3	1919
2422182.5	11	35	41.45	- 4.04	4	- 1 46 55.13	2.90	4	1919
2422187.5	11	39	32.18	- 1.75	2	- 3 14 40.28	1.10	2	1919
2422192.0	11	40	20.68	- 2.66	1	- 4 17 35.31	4.68	1	1919
2422197.0	11	38	2.32	- 4.02	1	- 5 5 2.06	2.44	1	1919
2422208.5	11	20	28.23	- 1.81	2	- 4 58 22.05	3.73	2	1919
2422212.5						- 4 15 52.34	5.56	2	1919
2422214.0	11	8	16.56	- 0.43	1				1919
2422219.0	10	57	28.08	- 0.99	3				1919
2422220.0						- 2 16 33.07	2.47	2	1919
2422222.0						- 1 40 10.91	2.91	1	1919
2422226.5	10	45	26.06	- 0.06	2				1919
2422227.0						- 0 9 57.75	0.24	2	1919
2422230.7	10	42	2.02	1.71	3	0 51 10.22	0.68	3	1919
2422235.0	10	41	20.26	- 2.13	3	1 51 15.46	- 0.17	3	1919
2422240.7	10	44	38.39	- 1.99	3	2 48 0.13	- 0.14	3	1919
2422244.3	10	48	59.35	- 1.56	3	3 9 10.48	- 1.66	3	1919
2422248.6	10	56	11.35	1.93	7	3 19 37.14	- 1.11	7	1919
2422252.0	11	3	13.19	- 0.86	4	3 16 53.82	- 0.04	4	1919
2422260.0	11	23	31.32	- 0.34	1	2 35 42.44	0.21	1	1919
2422269.0	11	51	5.63	- 0.13	1	0 59 24.35	- 0.38	1	1919
2422274.5	12	9	45.74	- 0.55	2	- 0 20 40.11	- 1.88	2	1919
2422278.5	12	24	1.90	- 0.08	2	- 1 27 5.06	- 1.29	2	1919
2422282.7	12	39	33.02	- 0.23	3	- 2 42 55.66	- 0.43	3	1919
2422288.0	12	59	49.40	1.56	3	- 4 25 44.43	- 1.99	3	1919
2422317.0	15	2	27.41	0.54	1	-14 29 42.59	- 0.32	1	1919
2422326.0	15	44	24.86	- 0.97	1	-17 14 16.21	- 0.76	1	1920
2422339.5	16	50	39.65	- 1.38	4	-20 23 47.95	0.08	4	1920
2422346.5	17	26	20.13	- 1.26	4	-21 26 27.36	1.56	4	1920
2422353.5	18	2	37.55	1.70	2	-22 0 35.81	0.21	2	1920
2422358.0	18	26	8.91	- 0.10	3	-22 6 29.07	0.80	3	1920
2422363.7	18	56	1.47	- 2.36	3	-21 55 22.93	- 1.21	3	1920
2422367.5	19	15	55.13	- 2.14	4	-21 36 21.95	- 0.70	4	1920
2422372.4	19	41	27.26	0.87	5	-20 58 20.66	- 0.69	5	1920
2422376.3	20	1	37.21	- 3.31	3	-20 17 29.22	1.13	3	1920
2422380.5	20	23	8.28	- 0.83	2	-19 23 26.56	1.68	2	1920
2422383.3	20	37	20.80	- 0.29	3	-18 41 53.24	1.89	3	1920
2422386.6	20	53	56.27	- 3.29	5	-17 47 31.64	0.16	5	1920
2422389.5	21	8	22.68	- 1.22	2				1920
2422390.3						-16 40 0.30	- 0.81	3	1920
2422393.0	21	25	37.45	- 0.61	2	-15 46 36.28	0.64	2	1920
2422403.8	22	17	35.83	- 1.82	4	-11 42 56.00	- 0.24	4	1920
2422406.5	22	30	18.80	- 1.00	4	-10 35 35.00	1.42	4	1920
2422409.7	22	45	15.33	0.80	3	- 9 13 3.60	1.97	3	1920
2422415.0	23	9	43.79	0.82	1	- 6 50 54.86	0.01	1	1920
2422422.5	23	43	55.20	- 0.08	2	- 3 20 57.41	- 1.23	2	1920
2422429.5	0	15	33.99	- 0.30	2	0 0 29.69	0.11	2	1920
2422435.0	0	40	23.60	- 0.66	1	2 39 47.12	- 1.27	1	1920
2422445.0	1	25	48.27	- 3.05	1	7 25 3.33	1.34	1	1920
2422446.0	1	30	23.18	- 1.99	2	7 52 53.87	0.52	2	1920
2422451.5	1	55	45.81	- 3.96	4	10 22 49.41	1.10	4	1920
2422455.7	2	15	23.97	- 1.63	3	12 12 41.24	0.85	3	1920
2422458.0	2	26	15.57	- 3.24	2	13 10 47.81	0.71	2	1920

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2422461.0	2	40	33.32	- 0.95	3	14	24	5.42	- 0.17	3	1920
2422466.5	3	7	9.55	- 1.12	2	16	30	7.82	0.14	2	1920
2422473.0	3	39	18.15	- 2.00	1	18	42	46.45	- 1.43	1	1920
2422478.0	4	4	33.58	- 5.36	4	20	10	57.55	0.28	4	1920
2422480.5	4	17	21.51	- 3.72	2	20	50	0.97	- 0.45	2	1920
2422484.0	4	35	27.57	- 1.06	3	21	38	41.61	- 0.47	3	1920
2422490.0						22	44	46.24	0.68	1	1920
2422499.5	5	57	33.80	- 2.93	2	23	40	58.68	1.29	2	1920
2422540.0	9	28	37.48	1.29	1	16	21	27.98	- 0.34	1	1920
2422577.0	12	19	51.15	- 0.66	1	- 0	58	26.61	1.31	1	1920
2422582.0	12	42	18.63	- 1.71	1	- 3	32	36.68	0.73	1	1920
2422588.0	13	9	24.09	- 3.34	1	- 6	35	30.12	0.21	1	1920
2422593.0	13	32	12.60	9.86	1	- 9	4	18.94	1.36	1	1920
2422596.5	13	48	19.24	2.47	2	-10	45	41.19	0.92	2	1920
2422602.0	14	13	59.47	- 4.04	1	-13	18	46.95	2.62	1	1920
2422603.0						-13	45	40.24	3.12	1	1920
2422604.5	14	25	49.47	- 5.50	2						1920
2422610.0	14	52	15.71	- 1.50	2	-16	44	13.06	0.03	2	1920
2422615.5	15	19	17.11	- 1.73	2	-18	50	25.43	0.35	2	1920
2422625.3	16	8	55.91	- 0.56	4	-21	57	32.46	0.02	4	1920
2422627.7	16	21	22.09	- 0.88	3	-22	34	56.01	1.25	3	1920
2422634.0	16	54	28.17	- 1.44	1	-23	55	34.68	- 1.61	1	1920
2422638.0	17	15	46.43	0.05	1	-24	32	43.29	0.35	1	1920
2422648.3	18	11	9.92	- 1.04	3	-25	15	8.09	- 1.30	3	1920
2422651.8	18	29	59.98	- 2.14	4	-25	11	34.94	- 1.64	4	1920
2422669.0						-22	44	50.16	0.16	2	1920
2422670.0	20	5	39.70	- 2.11	1						1920
2422675.0	20	30	47.86	- 2.53	1	-21	7	13.21	- 0.22	1	1920
2422703.5	22	41	6.50	- 3.27	2	- 9	30	53.80	- 3.95	2	1921
2422707.5	22	57	40.29	- 1.47	2	- 7	33	16.01	- 2.14	2	1921
2422711.0	23	11	50.40	- 2.09	2	- 5	48	27.03	- 3.34	2	1921
2422719.0	23	43	8.31	- 0.54	1	- 1	45	4.34	- 1.31	1	1921
2422724.8	0	4	55.13	- 1.74	4	1	11	51.98	- 1.92	4	1921
2422735.0	0	41	19.36	- 2.53	5	6	16	13.98	- 3.15	5	1921
2422738.7	0	53	51.35	- 4.58	6	8	2	27.81	- 2.94	6	1921
2422743.4						10	12	40.57	- 4.36	5	1921
2422743.5	1	9	28.87	- 1.80	4						1921
2422749.0	1	26	20.84	- 1.97	3	12	39	20.44	- 1.54	3	1921
2422751.3	1	33	0.99	- 3.68	4	13	36	24.89	- 2.34	4	1921
2422758.0	1	50	51.76	- 4.24	6	16	10	15.10	- 4.04	6	1921
2422761.0	1	57	56.17	- 1.44	3	17	12	15.77	- 2.34	3	1921
2422765.0	2	6	16.25	- 4.68	6	18	27	11.67	- 2.74	6	1921
2422769.0	2	13	7.47	- 3.71	3	19	32	0.09	- 2.46	3	1921
2422771.8						20	10	29.51	- 1.90	5	1921
2422772.2	2	17	21.44	- 4.75	6						1921
2422789.0	2	16	28.95	- 4.02	3	21	16	10.36	- 1.85	3	1921
2422793.0	2	10	15.17	- 3.33	3	20	37	15.61	- 1.89	3	1921
2422797.7						19	22	59.25	- 3.79	3	1921
2422798.5	1	59	4.85	- 2.40	2						1921
2422808.0	1	38	53.78	- 3.42	4	15	27	11.35	- 3.33	3	1921
2422811.0	1	33	54.69	- 1.13	1						1921
2422811.5						14	2	35.73	- 0.64	2	1921
2422818.0	1	26	58.22	- 0.21	3	11	46	22.58	- 0.87	3	1921
2422820.0	1	26	18.38	0.13	2	11	12	36.46	1.09	2	1921
2422826.0	1	27	45.74	0.38	2	9	58	7.73	0.45	2	1921

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	H	M	S	"		°	'	"	"		
2422830.3	1	31	44.72	- 0.71	7	9	29	36.41	0.21	7	1921
2422840.0						9	32	0.84	- 0.95	3	1921
2422841.0	1	50	22.75	0.74	2						1921
2422843.3	1	55	42.61	- 1.02	3	9	50	6.26	0.23	3	1921
2422847.0	2	5	5.17	- 0.49	1	10	18	26.94	- 0.28	1	1921
2422854.6	2	26	58.94	- 2.33	5	11	37	17.13	1.59	5	1921
2422857.7	2	36	47.71	- 0.71	3	12	15	16.17	1.45	3	1921
2422862.7	2	53	33.92	0.21	3	13	21	6.69	- 0.09	3	1921
2422866.1	3	5	34.88	- 0.16	7	14	7	57.41	2.22	7	1921
2422870.0	3	19	55.77	3.16	4	15	2	30.29	- 0.44	4	1921
2422874.0	3	35	13.42	- 0.50	3	15	58	17.28	0.94	3	1921
2422878.0	3	51	4.07	- 0.26	4	16	52	44.09	2.52	4	1921
2422883.0	4	11	35.36	0.05	3	17	57	16.55	1.30	3	1921
2422887.5	4	30	41.89	0.0	2	18	50	34.60	0.58	2	1921
2422890.7	4	44	38.06	- 0.88	3						1921
2422891.4						19	32	3.10	- 0.98	5	1921
2422895.7	5	6	57.17	1.32	3	20	11	46.48	2.63	3	1921
2422899.5	5	24	19.07	0.24	2						1921
2422899.8						20	42	50.57	1.88	4	1921
2422904.8	5	49	2.87	0.02	4	21	10	41.92	0.48	4	1921
2422907.7	6	2	47.73	1.70	3	21	21	22.89	0.21	3	1921
2422910.3	6	15	13.67	0.07	3	21	27	19.90	- 1.00	3	1921
2422919.0	6	57	24.41	2.33	2	21	20	59.59	- 1.07	2	1921
2422921.5	7	9	38.43	1.64	2	21	11	24.85	- 0.45	2	1921
2422928.0	7	41	33.42	2.36	1	20	29	53.43	- 0.86	1	1921
2422933.0	8	6	6.45	0.68	1	19	41	43.47	- 0.20	1	1921
2422937.5	8	28	7.53	2.29	2	18	46	34.84	- 0.21	2	1921
2422941.0	8	45	9.67	3.26	3	17	56	14.05	- 0.94	3	1921
2422955.5	9	54	35.19	0.75	2	13	24	33.68	- 0.61	2	1921
2422958.0	10	6	21.11	1.73	3	12	28	37.46	0.23	3	1921
2422961.4	10	22	15.38	1.25	5	11	8	52.55	- 0.58	5	1921
2422965.2						9	35	14.24	- 0.25	5	1921
2422965.5	10	41	17.83	0.94	4						1921
2422969.4	10	59	16.88	- 0.37	8	7	46	53.82	1.16	8	1921
2422975.7	11	28	7.74	1.71	3						1921
2422976.3						4	39	55.64	- 1.28	4	1921
2422980.5	11	49	59.93	0.84	4	2	42	1.81	- 0.72	4	1921
2422986.0	12	15	1.79	- 0.57	2	0	4	38.06	- 1.64	2	1921
2422992.3	12	43	47.13	- 1.04	3	- 2	57	24.15	- 0.48	3	1921
2423003.0	13	33	12.95	- 1.65	5	- 8	2	24.77	- 1.52	5	1921
2423005.5	13	44	56.16	0.75	2						1921
2423006.0						- 9	25	11.26	2.14	1	1921
2423009.5	14	3	51.70	- 0.93	2	-10	59	29.57	1.95	2	1921
2423017.0	14	40	2.59	0.99	1	-14	10	37.88	- 3.09	1	1921
2423020.5	14	57	16.37	- 1.60	2	-15	33	21.07	1.65	2	1921
2423044.0	16	59	4.05	1.54	1						1921
2423048.0	17	20	42.74	- 2.07	1	-22	52	27.22	0.95	1	1921
2423053.0	17	48	0.28	0.96	1						1921
2423066.0	18	59	16.42	- 1.08	1	-23	12	27.25	- 2.13	1	1922
2423121.5	23	37	7.67	- 1.84	2	- 3	59	16.20	- 0.07	2	1922
2423128.0	0	6	43.89	0.33	1	- 0	41	12.47	- 0.28	1	1922
2423132.0	0	24	52.42	- 1.47	1	1	21	30.68	0.07	1	1922
2423157.0	2	20	1.23	- 2.79	1	13	30	20.78	- 1.04	1	1922
2423170.5	3	25	33.52	- 4.51	2	18	51	1.27	1.10	2	1922
2423175.0						20	19	18.65	- 3.44	1	1922

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	H	M	S	"		O	"	"	"		
2423182.6	4	27	3.87	- 1.30	5	22	23	0.81	- 0.54	5	1922
2423185.5	4	42	9.14	- 2.02	4	23	0	56.95	0.22	4	1922
2423191.0	5	11	3.46	- 0.85	3	23	57	45.97	- 0.83	3	1922
2423195.3						24	27	48.93	- 0.31	3	1922
2423195.8	5	36	30.61	- 3.24	4						1922
2423199.4	5	55	40.67	- 1.91	7	24	44	19.35	0.53	7	1922
2423203.0	6	14	51.40	- 1.80	4	24	48	53.14	0.58	4	1922
2423205.5	6	28	9.35	- 0.76	2	24	46	33.76	- 0.40	2	1922
2423207.5	6	38	46.30	1.50	2	24	41	29.13	- 0.59	2	1922
2423213.0	7	7	46.10	- 0.07	1	24	12	56.04	- 0.36	1	1922
2423223.0	7	59	21.85	- 2.14	2	22	28	27.28	0.71	2	1922
2423226.5	8	16	58.29	- 2.26	4	21	36	55.99	0.96	4	1922
2423229.5	8	31	50.82	- 2.56	2	20	47	6.62	2.06	2	1922
2423234.7	8	57	8.05	- 0.88	3	19	9	10.07	0.03	3	1922
2423238.0	9	12	50.33	- 1.33	2	18	0	3.93	1.09	2	1922
2423241.0	9	26	52.89	- 1.87	1	16	52	57.80	0.99	1	1922
2423249.0	10	3	15.98	- 2.29	1	13	36	35.39	0.73	1	1922
2423255.0	10	29	36.38	- 1.53	2	10	55	28.45	0.74	2	1922
2423257.3	10	39	30.28	- 4.28	3	9	51	10.82	1.71	3	1922
2423262.5	11	1	31.32	- 3.96	2	7	21	37.45	2.02	2	1922
2423266.0	11	16	4.83	- 1.52	1	5	38	20.18	1.89	1	1922
2423270.5	11	34	31.15	- 0.23	2	3	23	17.78	1.05	2	1922
2423276.0	12	0	39.96	- 1.33	2	0	36	13.89	1.19	2	1922
2423278.5	12	6	38.34	- 0.40	2	- 0	40	1.51	0.35	2	1922
2423283.0	12	24	24.52	- 1.33	1	- 2	57	4.34	1.00	1	1922
2423304.3	13	46	36.03	- 1.32	3	-13	16	34.18	- 0.28	3	1922
2423310.5	14	9	57.44	- 0.01	2	-15	58	42.25	- 0.54	2	1922
2423314.5	14	24	50.27	- 0.41	2	-17	36	54.24	0.59	2	1922
2423318.5	14	39	31.28	- 1.80	2	-19	9	25.46	2.40	2	1922
2423323.5	14	57	29.73	- 0.74	2	-20	56	19.23	0.45	2	1922
2423327.0	15	9	43.61	- 2.43	2	-22	4	47.15	0.89	2	1922
2423332.0	15	26	31.12	0.14	2	-23	32	48.90	- 1.58	2	1922
2423340.3	15	51	50.09	- 4.47	8	-25	31	10.15	2.38	8	1922
2423343.5	16	0	25.99	- 5.62	4	-26	6	54.85	0.08	4	1922
2423370.5	16	24	44.04	- 3.99	2	-26	32	21.79	1.29	2	1922
2423374.0	16	19	34.96	- 4.26	2	-25	48	26.51	0.96	2	1922
2423379.5	16	8	27.22	- 5.54	2	-24	14	35.16	0.27	2	1922
2423388.0	15	48	50.07	1.33	2	-21	9	48.85	0.21	2	1922
2423406.5	15	31	54.27	1.10	2	-16	8	42.83	0.57	2	1922
2423410.0	15	34	35.40	1.86	1	-15	49	49.31	- 0.33	1	1922
2423417.0	15	44	47.20	- 0.06	1	-15	44	42.33	- 1.35	1	1922
2423423.0	15	57	52.58	0.52	1	-16	6	57.04	- 0.93	1	1923
2423431.5	16	21	53.94	0.06	2	-17	3	57.85	- 1.00	2	1923
2423435.0	16	33	19.51	1.33	1	-17	31	49.49	- 1.32	1	1923
2423443.0						-18	36	5.73	- 0.70	1	1923
2423449.5	17	27	49.92	0.25	2						1923
2423450.0						-19	25	19.18	- 0.32	1	1923
2423462.0	18	21	38.51	0.23	1	-20	15	12.17	- 0.84	1	1923
2423466.7	18	42	57.97	- 0.05	3	-20	18	30.96	- 1.37	3	1923
2423469.0	18	53	33.21	0.20	2	-20	16	16.65	0.72	2	1923
2423474.0	19	16	49.75	0.92	1	-20	2	18.04	- 0.47	1	1923
2423479.0	19	40	21.29	2.71	1	-19	35	18.89	0.08	1	1923
2423480.7	19	48	23.15	0.90	3	-19	23	8.03	0.33	3	1923
2423486.7	20	16	48.02	- 1.26	3	-18	27	57.15	0.19	3	1923
2423492.8	20	45	39.32	- 0.42	4	-17	12	46.62	- 0.86	4	1923

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2423495.7	20	59	18.81	- 1.04	3	-16	30	33.14	0.61	3	1923
2423506.0	21	47	18.36	- 0.56	4	-13	29	45.91	0.48	4	1923
2423508.8	22	0	11.20	- 2.76	4	-12	33	4.12	- 0.82	4	1923
2423512.5	22	17	5.83	- 3.04	2	-11	13	45.12	0.01	2	1923
2423515.0	22	28	27.40	- 0.71	2	-10	17	33.50	0.31	2	1923
2423521.0	22	55	30.73	11.07	2	- 7	55	8.31	3.29	2	1923
2423529.0	23	31	10.07	- 1.16	3	- 4	32	1.49	0.61	3	1923
2423534.0	23	53	17.92	0.55	1	- 2	19	32.99	- 0.07	1	1923
2423538.0	0	10	57.60	1.45	1	- 0	31	35.93	0.20	1	1923
2423543.0	0	33	2.23	- 1.53	7	1	44	40.10	0.24	7	1923
2423546.0	0	46	18.92	- 0.12	3	3	6	38.04	0.76	3	1923
2423552.0	1	13	0.49	0.84	1	5	49	36.22	0.28	1	1923
2423555.5	1	28	41.97	2.38	2	7	23	20.00	2.83	2	1923
2423564.3	2	8	42.32	- 0.74	3	11	10	40.35	0.76	3	1923
2423570.0	2	35	9.99	- 0.60	1	13	28	49.33	1.29	1	1923
2423572.0	2	44	34.27	- 1.77	1	14	15	5.32	0.50	1	1923
2423579.5	3	20	28.09	- 1.19	2	16	56	25.43	1.60	2	1923
2423582.5	3	35	6.96	0.51	2	17	54	46.20	0.59	2	1923
2423594.0	4	32	46.96	2.47	1	20	58	52.18	- 0.35	1	1923
2423600.2	5	4	46.80	- 0.69	5	22	8	11.00	- 0.04	5	1923
2423604.7	5	28	19.89	- 0.88	3	22	43	47.98	1.65	3	1923
2423608.8	5	49	58.31	0.44	6	23	4	52.03	- 0.07	6	1923
2423614.0	6	17	34.48	- 0.29	1	23	15	26.95	- 3.75	1	1923
2423621.2	6	55	51.64	- 1.63	5	22	59	57.31	- 1.32	5	1923
2423625.0	7	15	59.67	- 1.63	3	22	37	35.94	0.10	3	1923
2423630.5	7	44	55.87	- 0.99	2	21	48	16.63	- 0.25	2	1923
2423634.8	8	7	19.25	0.22	4	20	56	14.52	- 0.25	5	1923
2423639.8	8	33	1.79	- 0.10	6	19	41	39.71	1.19	5	1923
2423644.0	8	54	19.06	- 3.00	3	18	28	2.44	0.58	2	1923
2423646.3	9	5	51.09	- 0.24	3	17	43	45.40	0.31	3	1923
2423662.5						11	24	44.27	0.10	2	1923
2423663.0	10	26	52.54	1.21	1						1923
2423703.7	13	34	2.01	- 0.92	3	- 8	49	23.81	- 1.30	3	1923
2423718.0	14	42	10.01	- 1.51	1	-15	17	47.33	- 1.37	1	1923
2423723.0	15	6	50.99	- 0.23	2	-17	16	59.83	- 0.35	2	1923
2423739.7	16	32	58.85	- 1.20	3	-22	24	35.97	0.26	3	1923
2423792.0	21	12	21.80	0.96	1	-17	57	51.91	- 0.81	1	1924
2423797.0	21	36	54.43	- 0.50	1	-16	1	5.03	- 1.43	1	1924
2423809.5	22	35	50.68	- 0.23	2	-10	25	53.76	- 1.34	2	1924
2423815.7	23	3	58.06	- 0.74	3	- 7	22	46.29	- 1.77	3	1924
2423831.5	0	13	25.06	0.48	2	0	48	59.76	- 0.90	2	1924
2423843.0	1	2	58.60	0.25	1	6	47	53.31	- 0.66	1	1924
2423846.0	1	15	53.87	0.40	1	8	19	3.07	- 0.55	1	1924
2423851.9	1	41	23.42	- 2.49	7	11	13	19.15	- 2.20	7	1924
2423856.4	2	0	56.66	- 2.73	9	13	20	34.46	- 2.37	9	1924
2423860.6	2	19	18.03	- 1.46	7	15	13	54.44	- 2.70	7	1924
2423864.0	2	34	14.50	1.71	3	16	41	13.81	- 2.46	3	1924
2423876.0	3	27	30.53	- 0.35	1	21	11	41.43	- 1.59	1	1924
2423880.0	3	45	23.76	- 2.14	2	22	26	55.07	- 0.69	2	1924
2423883.5	4	1	3.32	1.87	2	23	25	54.90	- 1.70	2	1924
2423891.3	4	35	43.35	- 2.35	6	25	13	16.90	- 1.25	6	1924
2423894.5	4	49	44.74	- 3.95	2	25	47	20.13	- 0.78	2	1924
2423899.5	5	11	15.94	- 3.76	4	26	28	43.70	- 0.92	4	1924
2423907.0	5	42	13.10	- 0.88	1	27	4	12.37	0.94	1	1924
2423911.5	5	59	42.64	- 4.43	2						1924

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2423912.3						27	10	50.61	- 3.13	3	1924
2423917.0	6	19	36.51	- 3.27	2	27	5	5.32	0.55	2	1924
2423919.7	6	28	38.85	- 3.78	3	26	57	9.23	- 3.50	3	1924
2423927.0	6	50	5.96	- 1.81	2	26	21	15.69	0.99	2	1924
2423933.5	7	4	42.39	- 3.46	4	25	34	33.22	0.14	4	1924
2423936.0	7	8	58.59	- 2.83	2	25	13	44.25	- 0.71	2	1924
2423942.7	7	16	4.74	- 3.74	3	24	12	18.09	0.74	3	1924
2423945.5	7	16	57.61	- 6.70	2	23	44	43.46	- 1.89	2	1924
2423954.0	7	11	21.43	- 5.28	3	22	16	33.28	1.48	4	1924
2423961.0	6	57	56.20	- 5.10	2	21	0	19.79	1.51	2	1924
2423964.5	6	49	8.51	0.62	2	20	22	1.06	0.99	2	1924
2423971.0						19	14	42.28	1.70	1	1924
2423976.0	6	19	41.18	- 1.06	2						1924
2423976.3						18	28	43.91	- 0.09	3	1924
2423978.3	6	15	4.84	- 0.33	3	18	14	34.04	0.92	3	1924
2423982.0	6	9	17.01	- 0.87	5	17	53	42.18	- 0.20	5	1924
2423990.0	6	4	25.36	- 1.39	3	17	32	53.83	0.0	3	1924
2423995.3	6	6	54.46	- 0.54	3	17	34	38.74	0.54	3	1924
2424000.5	6	13	13.93	- 0.41	2	17	44	13.79	1.43	2	1924
2424004.0						17	53	3.36	1.96	4	1924
2424004.4	6	20	9.61	- 0.45	5						1924
2424007.0	6	25	41.56	0.34	2	18	1	5.31	- 0.55	2	1924
2424012.5	6	39	30.13	2.04	2	18	14	41.97	- 0.40	2	1924
2424019.0	6	58	56.32	1.05	5						1924
2424019.3						18	24	46.48	- 0.14	4	1924
2424026.0						18	22	12.51	- 1.21	5	1924
2424026.5	7	24	38.80	- 1.14	4						1924
2424032.0	7	45	11.76	0.07	3	18	6	2.79	- 0.38	3	1924
2424040.0	8	16	56.51	0.90	1	17	20	36.96	0.21	1	1924
2424047.7	8	48	57.99	3.50	6	16	8	54.12	- 1.79	6	1924
2424052.8	9	10	41.94	1.42	4	15	6	0.17	- 0.40	4	1924
2424058.5	9	35	17.56	1.50	2	13	41	31.15	- 0.85	2	1924
2424061.0	9	46	8.54	0.26	3	12	59	56.84	- 0.74	3	1924
2424066.3	10	9	13.44	1.68	3	11	23	13.20	- 1.23	3	1924
2424070.3	10	26	41.19	- 1.30	3	10	2	59.60	- 1.39	3	1924
2424074.5	10	45	3.08	- 2.40	4	8	32	40.35	- 0.50	4	1924
2424083.5	11	24	28.99	0.82	2	5	1	9.50	- 1.02	2	1924
2424088.0	11	44	14.83	1.75	1	3	8	3.36	- 0.26	1	1924
2424095.5	12	17	18.70	- 0.61	2	- 0	7	54.24	- 2.76	2	1924
2424100.5	12	39	30.69	0.85	2	- 2	21	38.39	- 1.44	2	1924
2424119.0	14	3	45.00	2.39	1	-10	31	18.54	- 2.01	1	1924
2424121.0	14	13	7.70	0.46	1	-11	21	30.08	- 0.94	1	1924
2424125.0	14	32	5.26	- 0.59	1	-12	59	1.75	- 0.93	1	1924
2424139.0	15	40	48.26	1.13	2	-17	58	58.54	- 1.71	2	1924
2424144.0	16	6	16.94	1.54	2	-19	25	45.40	- 0.72	2	1924
2424156.0	17	9	13.26	- 0.96	1	-21	57	45.04	- 0.42	1	1925
2424161.0	17	36	1.96	0.97	1	-22	34	36.38	- 0.46	1	1925
2424168.0	18	13	53.54	- 0.41	1						1925
2424174.0	18	46	25.98	0.20	2	-22	50	26.83	- 0.45	2	1925
2424187.0	19	56	9.62	0.15	1	-21	9	35.58	0.40	1	1925
2424199.5	21	0	56.75	- 5.84	2	-17	52	25.79	0.41	2	1925
2424210.0	21	53	8.23	- 0.03	1	-14	4	31.87	0.42	1	1925
2424221.0	22	45	41.18	- 1.66	4	- 9	20	34.91	0.12	4	1925
2424228.0	23	18	14.12	0.03	1	- 6	3	10.43	- 1.88	1	1925
2424285.3	3	47	2.04	0.43	3						1925

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2424285.8						19 51	10.44	-	0.96	4	1925
2424290.0	4	11	2.94	-	0.85	3					1925
2424290.3						21 7	15.30	-	0.12	4	1925
2424292.5	4	23	59.00		0.16	2					1925
2424293.3						21 51	28.89		0.19	3	1925
2424298.4	4	54	53.75	-	0.87	5	22 53	53.40		0.29	5 1925
2424305.3	5	31	35.88	-	0.31	3	23 51	1.89		0.52	3 1925
2424312.5	6	10	15.08		0.84	4	24 15	17.61		0.96	4 1925
2424317.0	6	34	26.44	-	1.26	2	24 11	37.52		0.17	2 1925
2424322.0	7	1	13.12	-	0.14	1	23 50	33.46	-	1.24	1 1925
2424327.0	7	27	46.12	-	0.30	4					1925
2424327.2						23 10	5.87	-	1.72	5	1925
2424331.3	7	50	20.07	-	0.66	4					1925
2424331.4						22 24	5.02	-	0.67	5	1925
2424333.5	8	1	45.85	-	0.08	4	21 56	47.66		0.84	4 1925
2424339.5	8	32	28.59	-	0.90	4	20 23	53.33		0.56	4 1925
2424346.0	9	4	55.70	-	0.28	4	18 20	17.07	-	0.02	4 1925
2424349.5	9	22	2.12		0.10	2	17 4	51.34		0.37	2 1925
2424358.0	10	2	31.45	-	0.48	3	13 39	27.53		0.45	3 1925
2424361.3	10	17	51.77		1.59	3	12 12	25.80	-	0.95	3 1925
2424369.0						8 36	56.27	-	0.38	3	1925
2424369.3	10	54	16.01	-	0.18	4					1925
2424375.0	11	19	39.31	-	1.81	1	5 39	42.39		1.03	1 1925
2424378.5	11	35	4.75	-	0.06	2	3 53	37.92		0.71	2 1925
2424382.5	11	52	35.38		0.31	2	1 50	46.83		0.13	2 1925
2424388.0						- 0 59	38.32		1.73	3	1925
2424388.5	12	18	42.65	-	0.81	2					1925
2424394.0	12	42	36.54	-	0.49	1	- 4 5	30.64		0.88	2 1925
2424396.0	12	51	18.62	-	0.28	3					1925
2424396.5						- 5 22	22.24		0.04	4	1925
2424400.5	13	10	56.97		1.22	2	- 7 23	59.84	-	0.74	2 1925
2424406.0	13	35	8.34		0.71	3	-10 7	19.27		1.42	3 1925
2424410.8	13	56	29.56		0.51	6	-12 24	52.22	-	0.71	6 1925
2424416.3	14	21	18.68	-	1.35	3	-14 54	55.16		1.13	3 1925
2424419.3	14	35	1.83		1.44	4	-16 12	42.92	-	0.24	4 1925
2424425.3						-18 38	4.29	-	0.16	3	1925
2424425.5	15	3	48.86		1.40	2					1925
2424432.0	15	34	38.69		0.71	2					1925
2424432.3						-21 7	35.58		0.68	3	1925
2424437.5	16	1	14.81		1.41	2	-22 42	34.11		0.31	2 1925
2424441.5	16	20	51.34		0.51	2	-23 45	16.38	-	0.37	2 1925
2424446.5						-24 50	0.16		0.34	2	1925
2424447.0	16	48	5.85	-	0.46	1					1925
2424452.0	17	13	1.59	-	0.65	2	-25 42	40.49		0.27	2 1925
2424454.5	17	25	30.27	-	0.37	2	-25 59	57.14		0.16	2 1925
2424458.6	17	45	55.45		0.54	5	-26 19	5.69	-	1.01	5 1925
2424462.5	18	5	13.51	-	0.98	2	-26 26	35.40		2.73	2 1925
2424466.5	18	24	48.87	-	1.05	6	-26 23	37.02	-	0.56	6 1925
2424471.7	18	49	48.98	-	0.02	3	-26 3	48.16		0.78	3 1925
2424473.8	18	59	43.24	-	0.94	4	-25 50	52.67		0.66	4 1925
2424477.7	19	17	45.21	-	1.32	3	-25 19	41.05		0.80	3 1925
2424481.7	19	35	40.78	-	0.52	3	-24 38	30.81	-	0.21	3 1925
2424487.0	19	58	22.99	-	2.50	4	-23 30	52.86	-	1.46	4 1925
2424493.3						-21 53	39.00	-	1.79	6	1925
2424493.4	20	23	56.81	-	1.61	7					1925

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	H	M	S	"		°	'	"	"		
2424497.4	20	38	44.80	- 1.65	5	-20	42	14.81	- 1.25	5	1925
2424501.5	20	52	51.52	- 0.82	4	-19	25	48.29	- 1.02	4	1925
2424507.3						-17	31	33.74	0.50	3	1925
2424507.5	21	11	19.01	- 0.94	4						1925
2424514.2	21	28	18.66	- 2.24	5	-15	11	33.43	- 1.21	5	1925
2424518.0	21	35	58.10	- 1.53	1	-13	55	8.55	- 0.24	1	1926
2424523.0	21	43	31.18	- 6.86	6	-12	18	24.63	- 3.09	6	1926
2424528.1	21	47	52.76	- 2.96	7	-10	47	43.70	- 2.25	7	1926
2424532.3	21	48	37.47	- 1.45	3	- 9	42	15.43	- 1.91	3	1926
2424536.2	21	46	49.72	- 4.05	5	- 8	51	28.93	- 3.82	5	1926
2424540.7	21	41	43.98	- 4.94	3	- 8	7	46.21	- 1.42	3	1926
2424544.2	21	35	41.57	- 4.70	6	- 7	46	29.68	- 3.13	6	1926
2424549.0	21	25	6.73	0.64	3	- 7	36	36.21	- 1.85	3	1926
2424558.8	21	1	8.72	1.22	4						1926
2424559.0						- 8	19	35.48	- 2.60	3	1926
2424564.2	20	50	44.50	1.52	6	- 9	3	20.74	- 1.64	6	1926
2424568.7						- 9	44	31.80	- 1.49	3	1926
2424569.0	20	44	59.34	3.78	5						1926
2424572.4	20	43	12.46	1.12	5						1926
2424572.8						-10	20	26.26	- 1.02	4	1926
2424577.0	20	43	51.32	3.26	5	-10	52	36.46	1.61	5	1926
2424581.0						-11	16	59.66	1.72	5	1926
2424581.6	20	47	47.18	2.88	5						1926
2424584.8	20	52	14.92	0.44	4	-11	33	19.59	2.58	4	1926
2424586.8	20	55	40.80	1.42	4	-11	39	1.23	1.34	4	1926
2424593.4	21	9	58.73	1.95	8	-11	42	40.75	2.32	8	1926
2424597.7						-11	32	15.69	1.45	3	1926
2424598.0	21	22	10.61	2.52	4						1926
2424601.0	21	30	55.66	3.76	2						1926
2424601.3						-11	15	42.41	1.70	3	1926
2424604.8						-10	52	50.69	1.62	4	1926
2424605.0	21	43	24.17	2.27	3						1926
2424607.8	21	52	36.36	2.60	4	-10	28	2.66	0.58	4	1926
2424616.3	22	22	21.75	4.29	6	- 8	52	55.74	1.81	6	1926
2424620.5	22	37	49.03	2.86	4	- 7	53	25.76	1.30	4	1926
2424625.0	22	54	46.22	3.24	4	- 6	41	29.20	0.90	4	1926
2424628.0	23	6	15.42	2.05	2	- 5	49	12.57	1.46	2	1926
2424634.3	23	30	46.40	0.87	7	- 3	49	32.85	0.90	7	1926
2424638.0	23	45	23.29	0.74	4	- 2	33	48.58	0.06	4	1926
2424642.8						- 0	50	34.45	1.88	4	1926
2424643.0	0	5	21.74	3.02	5						1926
2424648.5						1	17	39.55	- 0.10	6	1926
2424648.7	0	28	25.25	2.33	7						1926
2424652.7						2	54	55.68	0.38	3	1926
2424652.8	0	45	11.69	1.20	4						1926
2424656.2	0	59	14.01	3.44	5	4	17	5.36	0.22	5	1926
2424661.4						6	19	56.73	1.23	5	1926
2424661.5	1	21	22.20	2.36	4						1926
2424664.0						7	21	18.10	2.04	4	1926
2424664.3	1	33	12.24	2.17	3						1926
2424669.4	1	55	2.12	1.67	8	9	27	28.45	0.20	8	1926
2424673.3	2	11	59.58	1.60	4						1926
2424673.8						11	8	2.52	1.50	4	1926
2424677.6	2	30	58.39	1.36	5	12	32	23.40	- 0.02	5	1926
2424682.4						14	14	35.45	0.80	5	1926

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	H	M	S	"		°	'	"	"		
2424682.7	2	53	53.70	0.49	6						1926
2424685.5	3	6	40.83	1.80	4	15	17	26.56	1.42	4	1926
2424691.0	3	32	13.52	1.59	7	17	1	35.85	- 2.33	7	1926
2424695.2	3	52	7.78	1.57	6	18	13	52.94	0.56	6	1926
2424697.0	4	0	45.94	0.16	3	18	42	41.70	0.88	3	1926
2424698.8	4	9	27.97	1.67	6	19	10	6.61	0.98	6	1926
2424703.8	4	33	57.14	1.42	6						1926
2424704.2						20	23	22.18	- 1.52	5	1926
2424708.0	4	54	51.68	1.51	3	21	6	13.36	0.03	3	1926
2424711.4						21	37	57.68	- 0.57	8	1926
2424711.6	5	13	0.20	0.72	9						1926
2424714.8	5	29	16.82	0.78	5	22	3	9.06	0.11	5	1926
2424719.6						22	27	1.28	- 0.29	7	1926
2424719.8	5	54	56.73	1.81	8						1926
2424723.8	6	15	37.85	0.06	4	22	36	15.84	- 1.10	4	1926
2424732.5	7	0	50.78	1.37	6	22	19	47.38	- 1.10	6	1926
2424738.7	7	33	0.52	1.66	3						1926
2424738.8						21	37	39.63	- 0.74	4	1926
2424742.3	7	51	34.28	1.12	4	21	3	30.54	- 0.20	4	1926
2424747.5	8	18	9.73	- 0.83	2	19	59	5.99	- 0.38	2	1926
2424755.0	8	55	56.14	2.46	7	17	59	8.22	- 1.38	7	1926
2424758.5	9	13	17.74	0.68	4	16	53	3.58	0.32	4	1926
2424762.0	9	30	28.65	0.38	2						1926
2424762.3						15	34	39.14	- 0.50	3	1926
2424768.3	10	0	57.20	2.75	3	13	18	8.28	0.14	3	1926
2424773.3	10	24	44.53	2.42	4	11	13	57.30	- 0.94	4	1926
2424778.0	10	46	49.10	1.80	3	9	9	58.66	- 0.69	3	1926
2424782.0	11	5	25.44	3.13	3	7	19	50.97	- 0.71	3	1926
2424787.8	11	32	10.40	0.54	4	4	34	13.20	- 1.76	4	1926
2424791.3	11	48	13.74	2.00	4	2	51	45.34	0.54	4	1926
2424796.2						0	26	14.75	- 0.91	6	1926
2424796.4	12	11	34.04	2.48	5						1926
2424803.0	12	41	47.67	2.72	3	- 2	57	4.81	- 1.00	3	1926
2424807.5	13	2	30.30	- 0.93	2	- 5	10	48.37	- 0.81	2	1926
2424815.3	13	38	48.89	0.90	3	- 8	57	12.62	- 1.35	3	1926
2424837.5	15	27	9.81	0.79	2	-18	14	12.18	- 1.53	2	1926
2424857.5	17	12	47.13	2.46	4	-23	13	18.56	0.78	4	1926
2424865.0	17	53	51.13	- 0.59	3	-23	56	58.56	0.82	4	1926
2424867.7						-24	2	34.77	1.87	3	1926
2424868.0	18	10	22.04	- 0.11	2						1926
2424872.0	18	32	23.78	1.11	1	-24	0	20.21	- 0.97	1	1926
2424879.3	19	12	24.68	- 0.33	3	-23	25	1.92	0.80	3	1926
2424886.6						-22	11	27.91	0.45	5	1927
2424887.0	19	54	0.05	0.76	4						1927
2424892.5	20	23	6.38	- 1.69	6						1927
2424892.8						-20	40	55.81	0.18	5	1927
2424896.5	20	43	53.84	- 0.28	2	-19	35	39.39	- 2.18	2	1927
2424901.5						-17	55	12.07	1.02	2	1927
2424902.0	21	11	55.70	1.54	1						1927
2424907.0						-15	50	15.42	- 0.42	1	1927
2424914.0	22	10	50.82	- 0.65	5	-12	52	28.79	- 0.74	5	1927
2424919.3	22	35	58.59	2.42	3	-10	26	27.53	- 0.68	3	1927
2424923.0	22	53	14.16	- 0.89	1	- 8	39	52.21	- 0.69	1	1927
2424936.5	23	54	47.15	- 0.85	2	- 1	49	42.25	0.96	2	1927
2424939.0	0	6	1.62	- 0.52	2	- 0	31	46.45	- 2.30	2	1927

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	H	M	S	"		°	'	"	"		
2424942.0	0	19	29.28	- 0.59	2	1	1	58.69	- 2.32	2	1927
2424949.0	0	50	52.59	- 1.37	3	4	39	44.10	- 2.70	3	1927
2424955.7	1	21	3.62	1.42	3						1927
2424956.3						8	21	35.76	- 0.90	4	1927
2424962.3	1	51	6.69	- 1.33	3	11	16	36.05	- 1.89	3	1927
2424968.7	2	20	43.17	1.49	3	14	12	51.92	- 0.48	3	1927
2424973.5	2	43	17.88	1.39	2	16	16	7.61	- 0.11	2	1927
2424977.4	3	1	54.17	1.61	5	17	49	34.87	- 1.72	5	1927
2424983.6						20	3	57.45	- 1.97	5	1927
2424983.8	3	32	57.15	- 1.36	5						1927
2424989.0	3	58	38.78	- 1.00	4	21	44	57.60	- 1.12	4	1927
2424991.8	4	12	38.54	0.86	4	22	30	52.82	- 0.90	4	1927
2424998.3	4	45	29.89	0.17	6						1927
2424998.6						24	2	35.56	- 2.14	7	1927
2425004.7	5	18	12.29	- 0.27	6	24	59	31.45	0.0	6	1927
2425011.7	5	54	5.13	- 0.80	3	25	33	44.60	- 1.02	3	1927
2425019.7	6	34	44.76	- 1.15	6	25	31	32.36	0.51	6	1927
2425025.3	7	2	41.58	0.10	4	25	4	16.68	- 0.64	4	1927
2425029.5	7	23	14.72	- 0.93	2	24	30	34.76	0.20	2	1927
2425033.8						23	44	56.66	2.35	5	1927
2425034.0	7	44	47.33	- 2.36	4						1927
2425040.0	8	12	36.48	0.18	5	22	20	44.84	- 1.61	5	1927
2425043.5	8	28	17.74	- 0.06	2	21	24	31.67	- 0.54	2	1927
2425047.8	8	46	58.67	- 0.40	5	20	7	46.96	0.71	6	1927
2425053.7	9	11	29.35	- 1.57	6	18	10	23.95	0.88	6	1927
2425057.0	9	24	36.57	- 1.78	4	16	59	30.87	0.16	4	1927
2425061.0	9	39	55.48	0.50	4	15	29	24.77	1.54	4	1927
2425063.0	9	47	19.73	- 1.65	1						1927
2425064.5						14	7	25.16	0.99	2	1927
2425068.5	10	6	47.44	- 1.51	2						1927
2425068.7						12	26	1.46	0.48	3	1927
2425073.5	10	23	15.40	- 1.66	4	10	27	25.47	- 0.50	4	1927
2425081.4	10	46	37.92	0.0	5						1927
2425081.8						7	0	10.58	0.68	4	1927
2425088.3	11	4	1.52	- 1.16	3						1927
2425088.5						4	16	0.20	0.82	4	1927
2425090.5	11	8	53.53	0.82	2	3	28	22.99	0.33	2	1927
2425096.3	11	19	52.99	- 0.36	3						1927
2425096.5						1	11	50.30	0.78	4	1927
2425101.0	11	26	32.67	- 2.93	3						1927
2425101.3						- 0	27	45.72	1.78	4	1927
2425103.3						- 1	5	53.51	0.45	3	1927
2425103.8	11	29	24.88	- 0.98	4						1927
2425109.0	11	32	16.69	- 4.11	5	- 2	40	24.06	2.10	5	1927
2425111.3	11	32	26.43	- 2.60	3	- 3	11	26.05	2.03	3	1927
2425117.5						- 4	9	36.68	1.58	2	1927
2425117.8	11	28	59.13	- 2.76	4						1927
2425122.5						- 4	24	23.62	1.37	2	1927
2425123.0	11	22	6.25	- 3.98	3						1927
2425126.0	11	16	41.16	- 1.68	4	- 4	15	32.38	0.94	4	1927
2425129.5	11	9	22.79	- 0.82	2	- 3	50	42.24	1.16	2	1927
2425136.0	10	54	44.52	0.58	1	- 2	27	57.00	1.13	1	1927
2425139.5	10	47	24.58	- 2.55	2	- 1	29	54.30	1.40	2	1927
2425145.3	10	37	56.90	2.10	9	0	12	18.78	3.06	9	1927
2425148.8	10	34	26.20	1.23	5	1	10	48.64	- 0.25	5	1927

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	H	M	S	"		O	"	"	"		
2425152.0	10	32	51.38	2.40	4	1	58	50.16	- 0.28	4	1927
2425157.0	10	33	31.20	2.20	3	2	59	34.07	- 1.58	4	1927
2425160.2	10	35	51.17	2.91	5						1927
2425160.3						3	28	41.42	- 0.85	7	1927
2425165.0						3	54	11.75	- 2.16	4	1927
2425165.3	10	42	20.55	0.68	3						1927
2425168.3	10	47	34.73	2.04	3	4	0	55.10	- 2.06	3	1927
2425173.5	10	58	45.85	5.38	4						1927
2425174.0						3	51	43.30	- 2.63	3	1927
2425178.0	11	10	14.87	2.82	5	3	30	40.52	- 0.87	5	1927
2425181.0	11	18	40.59	3.32	4	3	7	38.59	- 1.86	4	1927
2425183.5	11	26	6.35	2.54	4	2	44	5.10	- 0.82	4	1927
2425186.7	11	36	5.54	3.34	3	2	8	31.24	- 1.82	3	1927
2425191.3						1	7	46.54	- 1.75	3	1927
2425192.0	11	53	38.68	1.89	1						1927
2425195.7	12	6	32.56	1.84	3	0	0	14.50	- 2.13	3	1927
2425200.8	12	25	3.93	3.48	4	- 1	27	50.60	- 2.06	4	1927
2425204.3	12	38	12.90	4.88	3	- 2	33	21.86	- 1.68	3	1927
2425208.8	12	55	34.91	2.54	4	- 4	2	24.81	- 1.86	4	1927
2425214.0	13	16	14.91	3.78	2	- 5	50	17.87	- 0.72	2	1927
2425217.0	13	28	26.62	1.64	2	- 6	54	11.28	- 1.70	2	1927
2425221.3	13	46	16.22	3.92	6	- 8	26	51.48	- 1.93	6	1927
2425224.5	13	59	48.02	2.60	4	- 9	36	4.54	- 1.50	4	1927
2425229.0	14	19	12.85	2.16	2	-11	12	46.09	- 1.20	2	1927
2425233.7	14	39	58.55	3.68	7	-12	51	36.78	- 2.86	7	1927
2425237.6	14	57	34.86	3.22	5	-14	10	52.21	- 3.58	5	1927
2425244.0	15	27	12.64	2.88	4	-16	13	1.69	- 1.52	4	1927
2425251.2						-18	14	45.11	- 0.78	5	1928
2425251.3	16	2	6.69	0.32	4						1928
2425258.4	16	37	8.68	1.10	5	-19	55	11.11	- 2.28	5	1928
2425264.3	17	6	59.16	3.48	4	-20	58	28.11	- 1.60	4	1928
2425267.0	17	20	49.62	3.00	5	-21	21	3.99	- 0.29	5	1928
2425271.3						-21	48	16.78	- 0.58	4	1928
2425271.4	17	43	34.99	0.34	5						1928
2425276.2	18	8	37.26	0.56	5	-22	5	31.41	- 1.21	5	1928
2425279.7						-22	8	32.68	2.10	9	1928
2425279.8	18	27	29.41	1.30	8						1928
2425283.8	18	48	29.65	2.72	4	-22	2	6.26	1.76	4	1928
2425288.8	19	14	43.24	0.94	4	-21	39	36.17	0.58	4	1928
2425294.2	19	42	53.90	3.15	5	-20	57	24.50	1.27	5	1928
2425298.0	20	2	33.95	1.03	6	-20	16	54.63	1.15	6	1928
2425303.3	20	29	41.92	1.28	4	-19	6	13.08	1.20	4	1928
2425305.0						-18	40	12.94	- 0.31	3	1928
2425305.3	20	39	50.00	2.84	4						1928
2425307.6	20	51	24.57	0.98	5	-17	57	25.85	1.19	5	1928
2425311.6	21	11	20.54	2.44	5	-16	44	55.08	1.16	5	1928
2425313.6	21	21	12.61	2.50	5	-16	5	47.01	0.72	5	1928
2425316.0	21	32	57.84	1.74	5	-15	16	26.18	0.47	6	1928
2425320.8	21	56	11.46	0.92	5	-13	30	29.27	2.80	5	1928
2425325.0	22	16	13.07	1.07	3	-11	50	42.41	0.35	3	1928
2425328.3	22	31	46.22	2.06	4						1928
2425328.7						-10	18	0.07	1.47	6	1928
2425335.4	23	4	44.72	2.75	5	- 7	20	44.96	1.99	5	1928
2425341.0	23	30	22.54	0.14	2	- 4	45	27.66	1.87	2	1928
2425345.5	23	50	48.43	0.42	2	- 2	37	25.11	2.67	2	1928

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	H	M	S	"		° ' "	"		
2425349.0						- 0 56 33.95	2.40	4	1928
2425349.3	0	7	59.53	2.08	3				1928
2425354.1	0	29	39.94	4.21	7	1 31 18.43	1.03	7	1928
2425357.0	0	42	46.14	3.38	3				1928
2425357.3						3 4 2.29	0.24	4	1928
2425361.5	1	3	9.32	3.38	4	5 4 55.58	1.00	4	1928
2425365.0	1	19	5.35	3.54	4	6 44 22.59	2.86	4	1928
2425369.7	1	40	38.62	2.50	6	8 55 5.81	0.42	6	1928
2425373.2	1	56	50.87	1.74	5	10 29 43.64	- 0.45	5	1928
2425376.3	2	11	19.89	2.91	9	11 51 9.44	- 0.03	9	1928
2425380.8	2	32	36.42	1.78	4	13 44 36.41	0.44	4	1928
2425386.3	2	59	3.76	1.52	3	15 54 9.89	0.92	3	1928
2425391.7	3	25	33.72	3.05	3	17 49 45.88	0.92	3	1928
2425396.3	3	48	33.42	1.24	4				1928
2425396.6						19 23 7.55	1.16	5	1928
2425400.0						20 20 43.67	1.04	4	1928
2425401.0	4	12	27.26	1.58	2				1928
2425404.0						21 20 19.32	0.70	1	1928
2425404.5	4	30	30.08	0.86	2				1928
2425408.3	4	50	19.27	2.06	4	22 13 49.88	- 0.04	4	1928
2425413.0	5	15	6.86	- 1.02	3	22 59 1.79	- 1.02	3	1928
2425437.0	7	23	30.31	- 1.93	1	22 54 7.87	- 0.30	1	1928
2425443.0	7	55	7.69	0.81	2				1928
2425444.0						21 38 7.50	0.50	4	1928
2425449.0	8	26	12.96	3.05	3	20 24 50.39	- 1.54	3	1928
2425453.0						19 15 41.85	- 0.40	7	1928
2425453.2	8	47	35.86	2.99	6				1928
2425457.8	9	10	37.79	1.46	4				1928
2425458.0						17 37 8.58	- 1.15	6	1928
2425461.5	9	28	51.49	1.18	4				1928
2425462.0						16 9 28.73	- 0.72	4	1928
2425466.8	9	54	31.08	0.81	6	14 15 2.58	0.08	8	1928
2425471.0	10	14	29.83	0.38	3				1928
2425471.3						12 19 41.49	0.66	4	1928
2425474.2						11 1 44.04	- 0.07	5	1928
2425474.5	10	30	55.61	1.54	4				1928
2425479.7	10	55	0.38	0.07	3				1928
2425479.8						8 24 28.06	- 0.46	4	1928
2425481.8	11	4	38.05	1.30	4	7 26 29.15	0.18	4	1928
2425487.0	11	28	16.62	0.93	2	4 52 12.32	- 0.23	2	1928
2425493.0	11	55	18.49	0.57	3	1 49 41.14	0.95	3	1928
2425496.0	12	8	46.17	0.78	3	0 17 21.58	1.13	3	1928
2425501.8						- 2 41 40.09	0.90	4	1928
2425502.0	12	35	40.91	1.12	2				1928
2425504.0						- 3 49 21.51	1.27	2	1928
2425510.7	13	14	56.41	- 0.37	6	- 7 13 1.98	0.05	7	1928
2425515.0	13	34	33.90	- 1.96	3	- 9 20 26.93	- 0.14	4	1928
2425517.3	13	45	8.97	0.48	3				1928
2425517.7						-10 38 35.79	- 0.31	3	1928
2425524.5	14	18	45.47	- 1.10	8	-13 47 11.19	- 0.06	8	1928
2425528.3	14	36	50.49	0.24	3				1928
2425528.4						-15 28 51.76	0.49	5	1928
2425532.0	14	54	42.36	- 2.42	4	-16 57 41.75	0.62	4	1928
2425536.0	15	14	19.51	0.07	3				1928
2425536.3						-18 36 35.27	2.60	4	1928

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	H	M	S	"		O	"	"	"		
2425540.5	15	36	46.83	0.52	2	-20	4	41.97	0.98	2	1928
2425544.5	15	57	4.67	- 0.95	2	-21	19	56.38	- 0.30	2	1928
2425550.0	16	25	28.88	1.07	3	-22	48	7.04	1.48	4	1928
2425552.0						-23	15	31.14	- 0.26	1	1928
2425557.0	17	2	20.68	- 1.45	3						1928
2425557.2						-24	14	15.68	1.16	5	1928
2425560.8						-24	43	57.59	- 0.60	4	1928
2425561.0	17	23	41.29	- 3.98	3						1928
2425564.5	17	42	28.52	- 1.12	4						1928
2425564.7						-25	5	33.15	1.15	6	1928
2425571.0	18	17	27.58	0.59	3	-25	16	40.09	0.97	3	1928
2425576.0	18	44	16.85	0.50	3	-25	4	25.14	- 1.18	3	1928
2425579.5	19	2	55.20	- 0.47	6	-24	44	50.47	- 1.54	6	1928
2425585.2						-23	54	9.35	- 3.09	9	1928
2425585.4	19	33	56.97	- 0.07	5						1928
2425589.8						-22	56	58.68	- 0.56	5	1928
2425590.0	19	57	41.77	- 1.56	3						1928
2425592.8	20	11	55.47	- 0.56	5						1928
2425592.9						-22	10	43.87	- 1.61	7	1928
2425599.0	20	42	43.99	- 1.95	5	-20	22	53.57	- 0.07	6	1928
2425602.0	20	57	16.33	- 0.11	2	-19	22	21.03	- 1.32	3	1928
2425608.0	21	25	34.99	- 1.66	3	-17	8	5.11	0.16	3	1928
2425614.8	21	56	25.93	- 0.88	6						1929
2425615.2						-14	7	15.14	- 2.55	6	1929
2425620.0						-11	56	58.57	- 2.55	8	1929
2425620.2	22	20	1.08	- 0.34	5						1929
2425624.5	22	38	14.58	- 0.40	2	- 9	49	18.54	- 1.41	2	1929
2425627.5	22	50	40.46	- 0.68	2	- 8	21	50.98	- 3.07	2	1929
2425630.5	23	2	52.62	- 1.24	2	- 6	52	52.43	- 1.09	2	1929
2425635.3	23	21	56.12	- 1.08	4	- 4	28	23.10	- 2.28	4	1929
2425640.0	23	40	3.03	- 1.40	4						1929
2425640.2						- 1	59	25.25	- 3.85	5	1929
2425642.5	23	49	28.22	- 1.15	2	- 0	49	22.29	- 1.46	2	1929
2425645.6						0	44	48.30	- 2.63	8	1929
2425645.7	0	1	18.67	- 0.17	6						1929
2425649.5	0	15	2.93	- 0.62	4						1929
2425649.8						2	51	24.51	- 2.57	5	1929
2425655.0						5	25	23.38	- 1.98	8	1929
2425655.2	0	34	57.83	- 1.25	6						1929
2425657.0	0	41	3.99	- 1.26	3	6	23	27.79	- 0.80	4	1929
2425661.6	0	56	12.44	- 1.05	5	8	33	48.61	- 3.02	5	1929
2425664.8	1	6	18.51	- 1.99	5	10	1	21.75	0.29	5	1929
2425668.3	1	16	53.58	- 3.15	3	11	33	31.83	- 2.20	3	1929
2425673.0	1	30	13.68	- 2.63	3	13	30	34.19	- 1.75	3	1929
2425677.7						15	18	33.49	- 0.61	3	1929
2425678.0	1	43	5.04	- 2.93	2						1929
2425682.6	1	53	25.25	- 2.82	5	16	59	43.57	- 0.51	5	1929
2425685.0	1	58	8.08	- 1.09	2	17	44	21.12	- 2.08	2	1929
2425690.2	2	6	25.61	- 3.18	5	19	8	5.38	- 2.91	5	1929
2425694.0	2	10	32.67	- 1.18	3	19	56	9.98	- 1.09	3	1929
2425698.3	2	12	53.87	- 7.04	7						1929
2425698.5						20	35	53.44	- 3.51	8	1929
2425705.0						20	53	30.38	- 1.61	7	1929
2425705.2	2	10	59.37	- 3.22	5						1929
2425710.0						20	29	10.84	- 1.20	6	1929

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	H	M	S	"		O	"	"	
2425710.3	2	5	1.24	- 2.96	3				1929
2425714.8						19	32	4.01	- 2.86 5 1929
2425715.0	1	56	38.65	- 2.66	4				1929
2425721.5						17	22	36.81	- 0.65 2 1929
2425722.0	1	41	29.32	- 0.16	1				1929
2425724.8	1	35	29.45	0.66	4	16	4	28.78	- 1.60 4 1929
2425730.6	1	25	2.46	1.70	5				1929
2425730.8						13	37	46.62	0.49 6 1929
2425734.6	1	20	12.98	2.19	5	12	12	28.76	1.16 5 1929
2425740.4	1	17	22.28	2.46	7	10	27	13.31	1.68 9 1929
2425743.7						9	43	41.30	1.45 3 1929
2425744.0	1	18	4.77	1.80	2				1929
2425748.7	1	21	37.75	3.07	7				1929
2425748.8						9	0	33.46	2.55 8 1929
2425753.7	1	28	18.06	1.19	7	8	45	7.60	- 0.32 7 1929
2425757.3	1	34	42.55	0.86	4	8	48	17.92	0.08 7 1929
2425762.5	1	45	58.89	0.35	2	9	11	20.02	0.18 4 1929
2425766.3	1	55	30.79	1.92	4	9	39	40.78	0.56 4 1929
2425769.4	2	3	59.14	2.35	7	10	8	40.28	1.64 7 1929
2425774.5	2	19	6.68	3.11	8	11	5	24.87	0.93 8 1929
2425778.0						11	49	21.95	- 0.18 5 1929
2425778.3	2	31	13.80	0.62	4				1929
2425781.7	2	42	37.75	2.09	7				1929
2425781.8						12	40	24.51	2.07 9 1929
2425785.3	2	55	13.61	0.05	3	13	29	28.46	0.61 3 1929
2425790.4	3	13	56.45	1.63	5				1929
2425790.5						14	44	9.68	- 0.30 4 1929
2425795.8						16	0	2.96	- 0.34 6 1929
2425796.0	3	35	34.03	1.76	4				1929
2425800.8	3	54	55.70	2.77	6				1929
2425801.0						17	11	43.84	- 0.24 7 1929
2425804.1	4	8	38.86	2.12	7	17	52	11.84	- 0.57 8 1929
2425808.8	4	28	43.77	1.25	6				1929
2425808.9						18	50	18.39	0.31 8 1929
2425812.1	4	43	11.54	2.38	8	19	25	19.37	0.88 8 1929
2425816.8						20	10	19.75	- 0.57 9 1929
2425816.9	5	4	43.66	2.06	8				1929
2425819.9						20	35	18.74	- 0.32 7 1929
2425820.0	5	18	55.71	2.57	5				1929
2425823.6						20	59	41.90	0.42 5 1929
2425823.7	5	36	8.98	2.67	3				1929
2425825.6						21	10	15.03	1.25 5 1929
2425825.7	5	45	34.23	3.64	3				1929
2425830.6	6	8	55.97	1.79	5	21	27	58.68	0.93 8 1929
2425836.7						21	31	52.52	- 0.32 6 1929
2425836.8	6	38	57.26	2.24	4				1929
2425839.4	6	51	39.33	1.48	5	21	27	5.59	- 0.85 7 1929
2425842.4						21	16	58.85	- 0.71 8 1929
2425842.6	7	7	21.08	2.49	7				1929
2425846.1						20	57	27.47	- 2.12 8 1929
2425846.3	7	25	33.29	2.38	7				1929
2425851.0						20	19	36.27	- 1.32 6 1929
2425851.2	7	49	41.49	0.29	5				1929
2425854.7	8	6	54.67	0.85	3	19	42	2.16	0.50 3 1929
2425858.2	8	24	4.67	0.58	5	18	59	29.35	- 2.45 6 1929

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	H	M	S	''		° ' ''	''		
2425862.6	8	45	32.74	0.47	5				1929
2425862.7						17 55 12.07	- 0.32	7	1929
2425866.1						16 59 44.27	- 0.99	8	1929
2425866.2	9	2	59.59	3.09	6				1929
2425868.3	9	13	6.83	0.90	3	16 20 50.22	- 1.18	3	1929
2425874.8	9	44	10.02	3.96	5				1929
2425874.9						14 10 53.70	- 0.88	8	1929
2425879.8	10	7	45.79	1.77	5	12 22 40.00	- 1.14	9	1929
2425883.0						11 7 11.06	- 0.98	5	1929
2425883.3	10	24	8.24	1.94	4				1929
2425886.7	10	39	56.20	1.33	3	9 35 40.83	- 3.15	3	1929
2425890.8	10	58	51.78	2.03	5				1929
2425891.2						7 39 8.47	- 1.27	6	1929
2425895.1						5 54 10.67	0.90	8	1929
2425895.2	11	19	2.75	2.39	5				1929
2425898.3						4 25 46.56	- 2.42	6	1929
2425898.5	11	34	7.01	0.44	4				1929
2425903.0	11	54	37.05	3.73	8				1929
2425903.1						2 10 17.42	- 1.92	9	1929
2425907.5	12	15	6.25	3.18	4				1929
2425907.8						- 0 4 41.19	- 1.84	6	1929
2425911.3	12	32	26.04	3.48*	3	- 1 45 55.00	2.18	4	1929
2425915.3	12	50	44.58	4.16	4	- 3 41 42.70	- 2.60	4	1929
2425917.8	13	2	14.19	3.30	4	- 4 53 43.80	- 2.70	4	1929
2425921.8						- 6 47 50.15	- 1.90	5	1929
2425922.0	13	21	39.78	2.06	4				1929
2425926.8	13	44	5.55	- 0.06	4	- 9 7 26.03	- 1.39	5	1929
2425931.3						-11 8 55.58	0.48	4	1929
2425932.0	14	8	44.24	1.05	2				1929
2425936.9						-13 32 50.23	- 3.27	9	1929
2425937.1	14	33	19.52	2.86	7				1929
2425941.0	14	52	26.61	2.80	5				1929
2425941.2						-15 16 27.76	- 2.06	6	1929
2425944.4						-16 29 0.96	- 3.10	7	1929
2425944.7	15	10	51.11	3.87	6				1929
2425949.5	15	35	8.17	2.36	4				1929
2425949.7						-18 19 17.40	- 1.61	7	1929
2425952.8	15	52	5.85	3.58	5				1929
2425953.0						-19 21 0.38	- 1.01	7	1929
2425959.0	16	24	31.49	3.03	3	-20 57 54.70	- 1.14	3	1929
2425964.4	16	53	18.66	1.99	5	-22 6 34.58	- 2.57	5	1929
2425968.6	17	15	59.77	2.19	5	-22 46 48.93	- 1.14	5	1929
2425973.0	17	39	58.27	0.16	2	-23 15 58.35	- 1.91	2	1929
2425980.8	18	22	45.39	1.18	4	-23 33 31.74	- 0.63	5	1930
2425984.2	18	41	24.92	1.50	5	-23 27 18.05	1.43	5	1930
2425987.7	19	0	34.02	2.17	3	-23 12 8.72	- 0.02	3	1930
2425993.3	19	30	59.11	1.06	3	-22 29 42.47	1.47	3	1930
2426001.0	20	12	7.81	- 2.20	3	-20 56 32.76	- 0.05	3	1930
2426021.0	21	53	47.45	- 0.41	2	-14 14 41.11	0.52	2	1930
2426027.5	22	25	7.40	- 1.12	4				1930
2426027.6						-11 23 12.64	- 0.40	5	1930
2426032.3						- 9 12 47.98	1.06	3	1930
2426032.5	22	48	44.83	1.91	2				1930
2426034.5	22	58	5.53	- 0.78	2				1930
2426035.0						- 7 55 24.27	- 2.34	3	1930

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	H	M	S	"		°	'	"	"		
2426037.0	23	9	42.39	1.34	1	- 6	57	3.79	- 1.89	1	1930
2426042.2						- 4	22	8.76	- 0.24	6	1930
2426042.5	23	35	1.00	1.80	4						1930
2426049.5	0	6	54.14	2.64	6						1930
2426049.7						- 0	33	37.34	- 1.53	9	1930
2426053.7						1	29	10.25	- 1.44	6	1930
2426053.8	0	26	24.15	1.43	5						1930
2426056.4	0	38	11.55	0.63	5						1930
2426056.6						2	58	1.39	- 1.05	8	1930
2426061.2	1	0	0.46	0.76	5	5	17	51.09	- 1.01	5	1930
2426064.0	1	12	47.23	0.55	2						1930
2426065.2						7	17	32.57	0.02	5	1930
2426069.6	1	38	31.91	- 0.85	5						1930
2426069.8						9	31	53.44	- 1.69	6	1930
2426073.7						11	22	11.83	- 0.14	3	1930
2426074.5	2	1	19.84	- 0.04	2						1930
2426077.0	2	13	4.93	1.43	5						1930
2426077.2						12	57	41.70	- 1.35	6	1930
2426080.5						14	24	13.01	- 3.12	4	1930
2426081.0	2	32	4.47	- 0.21	3						1930
2426082.7	2	40	13.46	0.43	3						1930
2426083.3						15	34	38.46	- 2.74	4	1930
2426091.3	3	22	13.61	1.09	3						1930
2426091.8						18	48	40.22	- 0.86	4	1930
2426096.0	3	45	45.00	- 2.08	6						1930
2426096.1						20	13	44.64	- 2.73	7	1930
2426099.0	4	0	58.43	- 1.24	4						1930
2426099.2						21	8	56.23	- 0.29	6	1930
2426103.7						22	19	6.28	- 0.53	7	1930
2426104.0	4	26	40.84	- 1.27	5						1930
2426106.7						22	58	57.16	- 1.77	7	1930
2426106.8	4	41	14.49	- 0.16	5						1930
2426112.0	5	8	32.56	0.0	6	23	55	2.50	- 0.96	8	1930
2426117.0	5	35	1.81	- 1.28	3						1930
2426117.6						24	33	28.55	- 0.60	5	1930
2426120.6	5	54	11.03	- 0.94	5						1930
2426120.9						24	45	46.19	- 0.11	7	1930
2426124.7						24	50	14.71	- 1.15	6	1930
2426124.8	6	16	32.70	- 1.59	5						1930
2426130.5						24	37	6.59	0.49	6	1930
2426130.7	6	47	50.36	0.50	3						1930
2426132.7						24	25	52.02	0.15	6	1930
2426132.8	6	58	54.30	- 1.28	4						1930
2426138.3	7	27	37.02	- 1.26	4						1930
2426138.4						23	41	10.32	- 0.54	5	1930
2426140.3						23	21	25.72	- 0.07	3	1930
2426140.5	7	38	58.03	- 1.09	2						1930
2426147.0	8	11	57.59	- 0.26	3	21	53	29.01	- 0.02	6	1930
2426152.1	8	37	12.33	- 1.59	7	20	28	39.41	- 0.60	9	1930
2426155.5						19	24	15.76	- 0.52	2	1930
2426156.3	8	57	32.23	- 0.10	3						1930
2426161.3						17	21	23.45	0.54	6	1930
2426161.6	9	22	34.42	- 0.80	5						1930
2426166.7						15	13	57.66	- 1.02	9	1930
2426166.8	9	46	27.81	0.49	6						1930

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	H	M	S	"		° ' "	"		
2426174.4						11 54 23.11	2.62	7	1930
2426174.5	10	20	39.91	0.29	6				1930
2426181.3						8 41 31.20	1.32	6	1930
2426181.4	10	50	14.37	- 0.09	5				1930
2426187.5	11	15	39.24	0.03	8	5 40 6.37	- 0.25	8	1930
2426190.0	11	25	53.66	0.78	1	4 25 26.64	0.64	1	1930
2426195.2						1 48 21.35	1.68	5	1930
2426195.5	11	48	6.06	0.06	4				1930
2426201.2	12	10	42.81	- 0.54	5				1930
2426201.3						- 1 17 16.57	1.96	6	1930
2426210.5	12	46	55.49	0.74	2	- 5 55 10.27	1.46	2	1930
2426214.9						- 8 5 17.38	1.24	8	1930
2426215.0	13	4	12.31	- 1.27	6				1930
2426217.2						- 9 12 10.33	0.29	5	1930
2426217.3	13	12	59.04	- 0.30	4				1930
2426222.0	13	30	48.27	- 1.40	6				1930
2426222.1						-11 31 19.88	1.64	7	1930
2426225.0	13	42	5.51	- 0.10	2	-12 51 11.67	0.38	3	1930
2426231.0	14	4	25.51	0.24	2	-15 29 17.87	1.67	2	1930
2426236.3						-17 39 44.64	0.19	7	1930
2426236.6	14	24	54.27	- 0.67	5				1930
2426240.5	14	38	53.43	- 0.39	6				1930
2426240.7						-19 20 30.02	- 2.62	7	1930
2426244.4						-20 39 19.90	0.11	7	1930
2426244.5	14	52	55.01	- 1.94	4				1930
2426249.5	15	9	50.19	- 0.80	4	-22 18 22.20	- 0.24	6	1930
2426252.3	15	18	55.26	- 1.22	6				1930
2426252.6						-23 12 40.53	- 0.03	7	1930
2426257.1						-24 23 1.08	- 0.95	7	1930
2426257.2	15	33	56.36	- 1.03	6				1930
2426261.0	15	44	37.29	0.02	3	-25 15 23.56	- 4.02	4	1930
2426265.3	15	55	25.50	- 1.35	6				1930
2426265.4						-26 4 13.01	0.50	7	1930
2426271.2	16	7	27.16	- 2.40	6				1930
2426271.3						-26 51 26.39	1.08	7	1930
2426274.0	16	11	46.67	- 3.60	3	-27 5 25.74	1.56	3	1930
2426278.3						-27 16 45.35	- 1.96	3	1930
2426279.0	16	16	50.18	- 0.48	1				1930
2426284.6						-27 5 24.56	2.30	5	1930
2426284.8	16	17	46.36	- 4.06	4				1930
2426287.4	16	16	20.42	- 4.67	5				1930
2426287.5						-26 47 27.16	5.17	6	1930
2426291.8						-26 4 24.74	4.70	4	1930
2426292.0	16	11	3.49	- 4.35	3				1930
2426296.5	16	2	58.70	- 2.09	2	-24 54 23.75	1.39	2	1930
2426306.5	15	40	23.03	- 0.61	2	-21 23 53.21	1.20	2	1930
2426309.3						-20 19 32.40	- 0.62	3	1930
2426309.5	15	34	8.75	- 0.49	2				1930
2426314.3	15	26	14.86	2.01	6	-18 32 21.18	- 0.85	8	1930
2426320.3	15	21	8.33	1.44	4	-16 50 50.73	- 1.06	4	1930
2426325.3	15	21	16.88	2.74	4	-15 55 37.18	- 1.20	4	1930
2426329.3	15	24	7.52	3.56	4	-15 30 45.87	- 0.56	4	1930
2426333.5	15	29	26.92	- 0.64	2	-15 21 12.80	0.85	2	1930
2426338.0	15	37	29.82	2.69	1	-15 26 52.44	- 1.10	1	1930
2426342.0	15	46	24.97	- 0.64	1	-15 42 51.32	0.55	1	1931

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	H	M	S	"		O	"	"	"		
2426345.3						-16	2	6.48	- 2.67	3	1931
2426346.0	15	56	48.06	1.81	2						1931
2426350.3						-16	38	33.30	- 3.21	6	1931
2426350.5	16	10	0.98	3.62	4						1931
2426355.8	16	27	23.09	1.90	4	-17	24	27.94	- 2.28	6	1931
2426359.0	16	38	41.67	1.29	1	-17	52	4.98	- 1.48	2	1931
2426363.8						-18	32	30.21	- 2.92	4	1931
2426364.0	16	57	26.39	3.10	3						1931
2426369.0	17	17	19.82	2.73	2						1931
2426369.3						-19	14	28.34	- 2.01	3	1931
2426372.0	17	29	44.83	4.00	3	-19	32	26.60	- 1.97	3	1931
2426376.3	17	48	5.97	3.31	7						1931
2426376.6						-19	57	50.73	- 3.81	9	1931
2426380.0	18	4	21.49	3.46	4	-20	11	39.25	- 1.70	4	1931
2426383.8						-20	21	23.51	- 1.32	6	1931
2426384.0	18	22	20.71	1.64	4						1931
2426388.7	18	43	55.45	1.85	3	-20	24	8.57	1.82	3	1931
2426393.0	19	3	59.08	1.43	2	-20	16	49.71	1.30	2	1931
2426397.3	19	24	15.46	2.09	7						1931
2426397.6						-19	58	25.74	1.02	9	1931
2426400.5	19	39	26.15	3.06	4	-19	41	4.54	1.10	6	1931
2426404.9						-19	6	12.17	1.10	8	1931
2426405.2	20	1	48.00	3.75	6						1931
2426407.3	20	11	48.02	1.04	3	-18	42	51.91	- 0.92	4	1931
2426412.6	20	37	0.57	3.58	5						1931
2426412.9						-17	36	41.23	1.67	7	1931
2426417.0	20	57	50.42	0.35	3						1931
2426417.3						-16	33	38.60	0.80	4	1931
2426419.2						-16	3	32.64	1.57	5	1931
2426419.3	21	8	40.73	2.16	4						1931
2426422.0	21	21	20.76	1.23	2						1931
2426422.5						-15	7	21.45	1.52	4	1931
2426426.7	21	43	14.27	1.71	3						1931
2426426.8						-13	47	7.04	0.12	4	1931
2426432.0	22	7	40.03	2.08	2	-12	0	18.91	1.84	2	1931
2426433.5	22	14	31.89	2.06	2	-11	27	42.98	0.21	2	1931
2426441.5	22	50	47.93	1.30	6						1931
2426441.6						- 8	19	19.87	0.42	7	1931
2426445.8	23	10	4.90	2.91	6						1931
2426445.9						- 6	32	10.95	0.72	9	1931
2426448.8	23	23	27.64	0.34	5						1931
2426449.0						- 5	12	30.81	- 1.59	6	1931
2426452.8						- 3	32	34.85	- 0.90	8	1931
2426452.9	23	41	40.22	0.42	7						1931
2426456.0	23	55	23.77	0.34	1						1931
2426457.5						- 1	26	23.70	0.35	2	1931
2426460.3						- 0	10	17.94	- 0.02	3	1931
2426460.8	0	16	36.90	2.54	4						1931
2426464.0	0	30	45.68	- 0.33	3						1931
2426464.2						1	36	19.28	- 1.81	5	1931
2426468.0	0	48	29.08	1.25	3	3	20	23.66	- 1.26	3	1931
2426473.0	1	10	44.91	1.99	3	5	36	36.21	2.37	3	1931
2426476.4	1	25	59.32	0.32	7						1931
2426476.6						7	13	21.66	- 0.51	8	1931
2426481.1	1	47	14.18	- 0.58	7						1931

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	H	M	S	"		° ' "	"		
2426481.2						9 14 31.90	- 0.66	9	1931
2426483.5	1 58	10.97		2.18	4				1931
2426483.8						10 21 23.24	- 0.52	4	1931
2426488.6	2 21	41.39		1.25	5				1931
2426488.7						12 23 19.87	0.39	6	1931
2426490.8	2 31	56.84		1.44	4	13 13 42.43	1.96	6	1931
2426495.6	2 54	35.94		1.03	7				1931
2426496.0						15 12 38.09	- 0.74	7	1931
2426499.8	3 14	45.05		1.96	4				1931
2426500.0						16 37 44.49	0.18	5	1931
2426505.1						18 16 53.49	1.64	7	1931
2426505.2	3 41	8.12	- 1.00	6					1931
2426509.8	4 4	2.44	1.16	5					1931
2426510.1						19 42 31.59	0.59	8	1931
2426512.8						20 23 31.18	- 0.40	5	1931
2426513.0	4 20	11.97	2.50	4					1931
2426517.8	4 44	45.47	0.54	5					1931
2426518.0						21 31 12.89	- 1.22	6	1931
2426522.0	5 6	32.09	0.96	6					1931
2426522.1						22 13 27.76	- 0.18	9	1931
2426525.4						22 39 55.20	- 0.18	5	1931
2426525.8	5 26	26.18	2.96	4					1931
2426530.7	5 52	18.69	0.96	6		23 7 43.20	1.53	7	1931
2426535.0	6 15	9.11	2.17	3					1931
2426535.7						23 16 44.74	- 1.59	7	1931
2426539.1						23 13 11.20	- 2.58	9	1931
2426539.3	6 38	2.26	1.24	7					1931
2426545.3						22 46 26.78	- 1.44	8	1931
2426545.4	7 10	26.39	0.80	5					1931
2426548.4	7 26	17.57	0.47	5					1931
2426548.7						22 20 48.67	- 0.96	6	1931
2426551.5	7 42	35.32	3.04	4					1931
2426551.6						21 52 57.62	0.72	5	1931
2426558.6						20 23 50.22	0.04	5	1931
2426559.0	8 21	31.55	- 1.18	4					1931
2426561.4						19 39 57.08	0.04	5	1931
2426561.6	8 34	50.13	- 0.63	5					1931
2426564.4						18 48 0.45	- 2.03	5	1931
2426564.7	8 50	33.77	1.28	3					1931
2426571.6						16 24 15.82	- 0.85	5	1931
2426571.8	9 25	57.66	3.22	4					1931
2426577.0						14 20 39.27	- 2.05	2	1931
2426577.3	9 52	46.57	2.13	3					1931
2426580.0						13 6 56.15	1.02	2	1931
2426581.0	10 10	31.78	- 0.86	1					1931
2426602.0						2 47 48.97	- 0.69	2	1931
2426603.0	11 52	36.82	1.35	1					1931
2426607.0	12 10	48.81	0.69	3		0 16 7.21	- 1.92	3	1931
2426609.5	12 22	10.95	0.42	2		- 1 0 6.19	- 0.55	2	1931
2426614.3						- 3 26 19.38	0.95	3	1931
2426614.5	12 44	57.47	0.74	2					1931
2426619.5	13 7	51.51	1.06	2					1931
2426620.0						- 6 18 9.93	0.72	5	1931
2426623.2	13 24	56.25	1.32	5		- 7 52 59.01	- 2.16	6	1931
2426628.5	13 49	40.34	2.03	6					1931

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	H	M	S	"		O	"	"	
2426628.7						-10 31	36.90	- 0.79	7 1931
2426635.2						-13 29	28.43	- 0.56	6 1931
2426635.3	14	21	59.67	0.35	3				1931
2426637.0	14	30	11.74	0.57	3				1931
2426637.3						-14 24	8.37	0.15	6 1931
2426641.6						-16 11	2.85	0.31	8 1931
2426641.7	14	53	8.89	0.39	6				1931
2426644.7	15	8	1.52	0.05	3	-17 23	25.94	1.61	3 1931
2426649.8	15	33	44.58	1.14	5				1931
2426649.9						-19 14	54.39	0.48	8 1931
2426652.7						-20 9	12.59	0.32	7 1931
2426652.8	15	49	7.37	- 1.25	6				1931
2426657.3						-21 28	49.76	1.74	9 1931
2426657.4	16	13	3.69	- 2.35	7				1931
2426663.5	16	45	24.75	- 0.72	4	-22 55	32.39	0.56	6 1931
2426668.0	17	9	38.94	- 0.12	3				1931
2426668.3						-23 45	0.48	2.28	4 1931
2426670.0	17	20	30.11	0.54	2	-23 58	39.05	1.47	3 1931
2426679.0	18	9	42.81	- 0.25	2	-24 35	31.19	2.18	2 1931
2426684.0	18	37	7.58	0.78	3				1931
2426684.2						-24 29	10.91	- 2.10	5 1931
2426688.5	19	1	41.41	- 1.64	2	-24 8	34.29	- 1.82	2 1931
2426692.5						-23 37	9.93	- 2.06	4 1931
2426692.7	19	24	26.12	- 0.88	3				1931
2426698.0	19	52	46.08	- 1.23	2	-22 35	28.00	- 1.56	2 1931
2426706.0						-20 30	3.31	0.65	1 1932
2426712.3	21	6	25.61	- 1.00	3	-18 24	41.97	- 2.36	3 1932
2426719.9	21	43	41.21	- 1.58	8				1932
2426720.0						-15 24	18.53	- 3.78	9 1932
2426726.0						-12 46	39.34	- 1.37	6 1932
2426726.2	22	13	34.89	- 1.61	5				1932
2426730.5	22	33	30.58	- 0.94	4				1932
2426730.8						-10 31	54.10	0.31	5 1932
2426734.3						- 8 49	44.27	- 2.03	6 1932
2426734.4	22	51	17.02	- 2.75	5				1932
2426739.7						- 6 6	58.35	- 2.67	7 1932
2426739.8	23	15	29.42	- 2.03	6				1932
2426744.0						- 3 54	4.47	- 3.10	4 1932
2426744.3	23	35	21.83	- 0.90	3				1932
2426748.0	23	51	32.43	- 0.88	3				1932
2426748.3						- 1 39	19.29	- 1.46	4 1932
2426754.9						1 48	46.36	- 1.41	8 1932
2426755.2	0	22	42.72	- 1.21	5				1932
2426758.5	0	36	54.58	- 0.82	2	3 41	50.31	- 1.06	2 1932
2426762.0	0	51	56.26	- 2.60	4	5 30	48.99	0.07	6 1932
2426767.0	1	13	24.16	- 0.92	1	8 3	52.01	0.07	1 1932
2426768.4						8 45	59.55	- 1.52	5 1932
2426768.5	1	19	51.00	- 1.46	4				1932
2426770.2						9 39	37.83	- 0.22	5 1932
2426770.3	1	27	35.74	- 0.18	4				1932
2426776.4	1	53	56.30	- 1.61	5				1932
2426776.5						12 41	31.78	- 1.42	6 1932
2426781.0	2	13	55.74	- 0.58	5	14 44	46.81	- 0.85	5 1932
2426783.5						15 50	23.84	- 1.86	4 1932
2426783.7	2	25	43.13	0.17	3				1932

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	H	M	S	"		O	"	"	
2426786.0	2	35	47.61	- 1.49	3	16	53	46.25	3 1932
2426790.3	2	54	42.56	0.68	4				1932
2426790.6						18	44	0.24	5 1932
2426796.3	3	21	14.66	- 2.64	4	20	47	53.59	6 1932
2426801.1						22	20	16.67	7 1932
2426801.4	3	43	52.84	- 2.64	5				1932
2426804.1						23	12	3.82	0.19 7 1932
2426804.3	3	56	45.02	- 2.20	4				1932
2426810.7	4	25	0.35	- 4.63	6	24	48	52.88	- 3.75 6 1932
2426814.3						25	31	27.58	- 2.06 7 1932
2426814.5	4	41	34.84	- 2.58	4				1932
2426818.1						26	8	23.17	- 0.50 7 1932
2426818.3	4	57	54.02	- 1.30	4				1932
2426820.6						26	28	10.54	- 1.34 5 1932
2426820.8	5	8	27.14	- 1.32	4				1932
2426826.0	5	29	47.53	- 4.36	6				1932
2426826.1						26	59	21.18	- 1.64 8 1932
2426831.0	5	49	19.05	- 3.12	3	27	13	13.80	- 2.01 5 1932
2426837.0	6	11	2.11	0.51	1	27	13	35.61	2.96 1 1932
2426843.3	6	31	10.92	- 1.68	4				1932
2426843.4						26	55	42.43	1.54 5 1932
2426845.7	6	37	58.57	- 3.10	7				1932
2426845.8						26	44	45.42	- 0.54 8 1932
2426849.5	6	47	33.95	- 2.74	2	26	23	58.64	1.30 4 1932
2426853.3	6	55	32.97	- 3.10	3	25	58	15.41	1.16 7 1932
2426860.8	7	5	45.65	- 4.68	4	24	57	4.82	- 0.78 6 1932
2426866.3	7	7	46.90	- 4.04	4				1932
2426866.4						24	4	29.78	- 0.22 5 1932
2426868.3	7	7	14.56	- 2.96	3	23	45	34.03	- 0.76 3 1932
2426873.0						22	56	40.09	- 1.06 2 1932
2426874.4	7	1	15.98	- 3.96	5				1932
2426878.0	6	54	51.17	1.41	2				1932
2426883.3						21	1	9.11	0.81 3 1932
2426883.5	6	41	53.45	- 3.85	2				1932
2426888.0						20	7	38.81	- 0.05 1 1932
2426890.5	6	23	9.88	- 0.57	2	19	40	30.83	1.54 2 1932
2426896.3						18	45	8.22	0.93 8 1932
2426896.7	6	8	33.89	- 0.42	6				1932
2426899.0	6	4	17.96	0.19	3				1932
2426899.5						18	21	6.15	1.80 4 1932
2426903.3	5	58	28.92	- 1.75	3	17	59	47.25	- 0.64 3 1932
2426908.3						17	44	1.10	0.24 6 1932
2426908.5	5	55	31.15	1.02	4				1932
2426912.3						17	40	26.90	2.15 3 1932
2426913.0	5	56	31.20	0.13	2				1932
2426917.7	6	0	48.31	0.49	6				1932
2426917.8						17	45	35.54	0.67 5 1932
2426923.3						17	58	8.11	0.58 4 1932
2426924.0	6	11	2.17	1.57	2				1932
2426926.0						18	5	34.22	1.54 4 1932
2426926.3	6	15	52.50	1.09	3				1932
2426930.3	6	25	30.42	2.12	7	18	17	28.93	1.38 7 1932
2426933.4						18	25	12.22	- 0.19 7 1932
2426933.8	6	35	3.98	- 0.28	4				1932
2426937.2	6	45	14.80	0.17	6				1932

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	H	M	S	"		° ' "	"		
2426937.4						18 32 55.67	- 0.16	7	1932
2426941.5						18 36 59.71	- 1.03	6	1932
2426941.7	6	59	53.95	- 1.35	6				1932
2426945.8	7	14	15.20	1.36	4	18 35 50.92	- 0.82	4	1932
2426949.9	7	29	24.39	2.38	7	18 28 37.92	0.13	7	1932
2426953.0	7	41	18.65	2.35	5	18 18 44.79	0.07	5	1932
2426958.8	8	4	25.32	1.57	6	17 49 9.51	- 1.05	6	1932
2426961.7	8	16	18.94	1.68	3				1932
2426962.3						17 23 56.82	- 0.14	4	1932
2426967.0						16 41 1.49	- 0.57	8	1932
2426967.3	8	39	46.57	0.47	6				1932
2426971.4						15 51 19.12	- 1.05	5	1932
2426971.5	8	57	42.20	0.24	4				1932
2426976.0	9	17	7.98	0.92	4	14 49 36.25	- 1.40	4	1932
2426980.2	9	35	24.40	1.01	5				1932
2426980.3						13 43 11.14	- 1.75	8	1932
2426982.0	9	43	15.99	1.92	2				1932
2426982.7						13 2 36.34	- 0.31	3	1932
2426987.0	10	5	8.87	2.27	3	11 43 54.59	- 1.44	3	1932
2426991.8						10 7 36.30	- 1.94	4	1932
2426992.0	10	27	4.27	1.50	2				1932
2426996.0						8 36 39.49	- 0.62	4	1932
2426996.3	10	45	56.67	4.45	3				1932
2427000.5	11	4	23.27	3.80	6				1932
2427000.7						6 48 16.48	- 3.23	7	1932
2427004.0	11	19	46.17	3.47	5				1932
2427004.2						5 23 38.60	- 1.03	6	1932
2427008.0	11	37	22.13	3.60	4	3 48 30.82	- 0.84	4	1932
2427011.0	11	50	35.29	2.47	2	2 31 25.15	- 1.48	2	1932
2427014.0	12	8	28.01	3.06	4				1932
2427014.2						1 7 39.92	- 0.51	6	1932
2427016.7						0 1 20.40	- 1.84	6	1932
2427016.8	12	16	13.33	1.74	5				1932
2427022.0	12	39	20.62	2.66	4	- 2 20 55.16	- 1.86	5	1932
2427026.8						- 4 30 31.32	- 1.10	5	1932
2427027.0	13	1	45.68	2.10	3				1932
2427029.5						- 5 43 14.13	- 2.38	6	1932
2427029.6	13	13	30.64	1.41	5				1932
2427034.8						- 8 4 23.26	- 0.78	6	1932
2427035.3	13	39	32.57	0.92	3				1932
2427039.3	13	58	4.25	1.66	3	-10 1 24.52	0.66	3	1932
2427041.7	14	9	18.15	2.06	3				1932
2427041.8						-11 4 49.73	0.32	4	1932
2427044.1						-12 1 56.99	- 2.33	7	1932
2427044.3	14	21	34.47	3.08	4				1932
2427047.8						-13 30 53.84	- 0.88	6	1932
2427048.0	14	39	14.16	1.07	5				1932
2427050.3						-14 28 41.89	- 2.52	6	1932
2427050.4	14	50	49.55	2.41	5				1932
2427055.5	15	15	49.12	2.90	4				1932
2427056.0						-16 32 15.73	- 2.13	6	1932
2427062.8	15	52	29.21	0.15	6	-18 41 59.79	0.61	6	1932
2427065.5	16	6	18.98	0.81	2	-19 27 22.12	- 0.40	2	1932
2427071.4	16	37	0.09	2.73	5	-20 52 46.02	- 1.95	5	1932
2427078.3						-22 6 20.22	- 0.27	6	1933

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	H	M	S	"		° ' "	"		
2427078.6	17	15	11.35	0.58	5				1933
2427083.7	17	42	36.81	3.09	6				1933
2427083.9						-22 43 25.92	- 0.79	7	1933
2427088.8	18	10	13.53	3.46	4	-22 58 21.71	0.0	4	1933
2427092.0						-22 59 5.09	- 0.98	7	1933
2427092.3	18	29	13.17	0.94	4				1933
2427097.3						-22 44 27.41	0.20	8	1933
2427097.5	18	57	24.54	3.11	6				1933
2427101.6	19	19	31.45	1.95	5				1933
2427101.8						-22 16 42.00	3.09	6	1933
2427107.0	19	48	23.30	0.49	2	-21 27 39.46	- 0.06	2	1933
2427110.5	20	6	53.26	1.65	2				1933
2427110.8						-20 40 44.23	1.30	4	1933
2427114.3						-19 49 41.27	1.47	3	1933
2427115.0	20	30	22.89	1.74	2				1933
2427119.3	20	52	29.64	- 0.64	3				1933
2427119.5						-18 20 50.60	0.52	4	1933
2427122.5	21	8	43.68	0.44	2	-17 22 59.89	0.10	2	1933
2427127.0	21	31	13.53	1.20	1				1933
2427127.3						-15 41 19.06	1.25	3	1933
2427131.3						-14 8 52.41	- 0.02	3	1933
2427132.0	21	55	46.13	0.20	1				1933
2427134.0	22	5	27.49	0.82	2	-13 2 55.54	- 0.42	2	1933
2427139.3	22	30	48.16	1.14	3				1933
2427139.4						-10 43 32.52	0.13	5	1933
2427143.3						- 8 57 34.49	0.52	4	1933
2427143.7	22	51	30.70	- 1.71	3				1933
2427148.3	23	12	53.94	1.49	3				1933
2427148.5						- 6 30 46.28	- 1.00	4	1933
2427155.0	23	43	40.64	- 1.74	5				1933
2427155.2						- 3 14 49.24	- 1.21	5	1933
2427157.8	23	56	27.09	0.20	5	- 1 57 25.84	- 0.22	5	1933
2427161.1						- 0 18 37.93	0.37	7	1933
2427161.2	0	11	55.16	- 0.76	6				1933
2427165.0	0	29	11.08	1.80	2				1933
2427165.3						1 47 24.28	1.02	3	1933
2427181.7	1	45	41.25	0.62	3	9 46 36.55	0.47	3	1933
2427211.5	4	11	18.54	- 0.34	2				1933
2427211.7						21 7 31.65	- 0.69	3	1933
2427215.0	4	29	26.90	- 0.01	1	21 56 2.33	2.62	1	1933
2427220.5	4	58	20.03	- 1.63	2	23 1 43.23	0.18	2	1933
2427226.0	5	27	35.58	- 0.14	2	23 47 27.81	0.31	3	1933
2427230.0	5	49	1.53	- 0.95	2				1933
2427230.5						24 9 18.55	- 0.04	2	1933
2427234.5	6	13	12.71	- 1.15	2				1933
2427235.0						24 16 45.81	- 0.52	3	1933
2427238.0	6	32	1.57	1.26	3	24 13 40.20	- 0.09	3	1933
2427244.6	7	7	20.50	1.06	7	23 44 13.75	- 0.14	8	1933
2427247.8						23 18 57.18	- 0.44	4	1933
2427248.5	7	28	1.18	0.86	2				1933
2427252.3	7	47	58.12	1.47	6				1933
2427252.6						22 28 3.68	- 0.99	8	1933
2427257.7	8	15	53.99	- 0.49	6				1933
2427257.9						21 14 39.94	- 0.66	7	1933
2427260.0	8	27	37.80	0.48	3	20 40 51.93	- 0.64	3	1933

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	H	M	S	"		O	"	"	"		
2427262.0	8	37	44.51	- 0.83	3	20	6	19.94	1.35	3	1933
2427266.7						18	36	30.88	- 0.61	3	1933
2427267.0	9	2	39.66	0.92	2						1933
2427274.7	9	40	0.14	- 0.69	3						1933
2427274.8						15	36	16.74	0.34	4	1933
2427278.4						14	7	10.21	0.63	5	1933
2427278.5	9	57	58.88	0.08	4						1933
2427283.8	10	22	35.51	0.63	5						1933
2427284.3						11	31	9.49	0.58	4	1933
2427288.3	10	43	5.94	- 0.32	4						1933
2427288.7						9	28	2.40	0.16	3	1933
2427296.0	11	17	30.36	1.07	1	5	54	0.70	0.44	1	1933
2427301.3	11	40	48.58	1.26	4	3	13	8.77	0.95	3	1933
2427307.3	12	6	57.58	0.30	4	0	7	53.62	1.32	4	1933
2427311.0	12	23	1.33	1.42	3	- 1	46	58.56	0.07	3	1933
2427314.3	12	37	20.24	0.96	4	- 3	29	13.36	0.94	4	1933
2427319.0	12	57	45.42	1.42	3	- 5	53	42.48	0.17	3	1933
2427322.4	13	12	34.99	- 1.75	8	- 7	36	47.15	0.71	8	1933
2427328.0	13	37	11.11	- 0.17	2	-10	22	38.90	0.47	2	1933
2427331.0	13	50	29.21	- 0.75	2	-11	48	54.11	1.09	2	1933
2427336.2	14	13	47.88	- 1.67	6	-14	12	59.16	1.03	6	1933
2427342.0	14	40	14.27	- 1.21	3	-16	43	44.16	1.84	3	1933
2427345.0	14	54	6.64	- 0.65	2	-17	56	51.96	0.36	3	1933
2427349.3	15	14	14.17	- 3.20	4	-19	35	4.47	0.28	4	1933
2427354.0	15	36	33.90	- 1.56	3	-21	12	34.09	1.80	3	1933
2427357.7	15	54	22.65	- 0.12	3	-22	21	23.97	1.28	3	1933
2427363.8	16	24	8.59	- 1.43	5	-23	58	8.80	1.36	5	1933
2427370.8	16	58	45.04	- 0.47	6	-25	21	13.96	1.91	6	1933
2427374.5	17	17	7.72	- 1.09	2	-25	52	20.02	- 0.38	2	1933
2427379.3	17	40	56.00	- 2.37	3	-26	18	57.67	0.90	3	1933
2427384.0	18	4	4.52	- 1.26	2	-26	29	54.63	0.95	2	1933
2427388.5	18	25	56.69	0.0	2	-26	26	26.67	0.51	2	1933
2427392.0	18	42	40.30	- 2.11	2	-26	14	31.16	- 1.68	2	1933
2427398.5	19	12	51.22	- 2.33	6	-25	31	45.85	- 0.12	6	1933
2427402.5	19	30	41.86	- 1.12	2	-24	53	4.39	- 1.81	2	1933
2427406.0	19	45	45.44	- 2.18	3	-24	12	7.82	- 2.34	3	1933
2427409.5	20	0	14.04	- 1.70	2	-23	25	11.55	- 3.72	2	1933
2427414.0	20	17	53.41	- 1.65	5	-22	16	55.52	- 0.63	5	1933
2427419.7	20	38	30.59	- 4.39	7						1933
2427420.0						-20	34	31.58	- 3.38	6	1933
2427423.0	20	49	27.04	- 3.79	3	-19	39	25.87	- 1.35	3	1933
2427428.3	21	5	17.02	- 1.80	4	-17	57	48.58	- 2.18	4	1933
2427434.8	21	21	17.75	- 4.10	4	-15	49	50.57	- 3.04	4	1933
2427441.4	21	32	57.54	- 4.94	5	-13	42	38.67	- 3.47	5	1934
2427448.0	21	39	3.72	- 4.34	4	-11	46	9.52	- 4.68	4	1934
2427451.5	21	39	43.39	- 2.67	2	-10	51	47.59	- 2.38	2	1934
2427455.2						-10	2	3.08	- 2.41	5	1934
2427455.5	21	38	6.69	- 4.29	6						1934
2427461.8	21	30	23.59	- 4.32	5	- 8	58	37.76	- 5.19	5	1934
2427468.3	21	16	47.59	- 4.60	4	- 8	33	49.80	- 3.88	4	1934
2427470.0	21	12	37.67	1.26	1	- 8	33	42.85	- 0.84	1	1934
2427476.5	20	56	19.46	0.12	4	- 8	54	41.14	- 3.78	4	1934
2427480.5	20	47	23.72	1.17	2	- 9	20	25.32	- 3.79	2	1934
2427484.0	20	41	6.34	2.12	4	- 9	47	32.57	- 2.68	4	1934
2427489.3	20	35	6.22	1.89	6						1934

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	H	M	S	"		°	'	"	"		
2427489.5						-10	33	9.20	- 1.57	6	1934
2427493.3	20	33	39.63	2.36	3	-11	3	16.79	- 2.18	3	1934
2427496.0	20	34	10.98	0.89	2	-11	22	35.66	2.35	2	1934
2427498.3	20	35	32.38	1.66	3	-11	37	15.66	2.11	3	1934
2427503.5	20	41	26.71	0.76	4	-12	2	41.59	1.08	4	1934
2427507.1	20	47	34.94	0.93	7	-12	13	5.04	- 1.30	7	1934
2427512.4	20	59	9.26	1.61	5	-12	16	29.94	1.03	5	1934
2427516.8	21	10	38.73	1.56	4	-12	8	11.66	1.16	4	1934
2427519.3	21	17	48.17	0.05	3	-11	58	53.62	1.22	4	1934
2427525.5	21	37	9.27	1.86	4	-11	21	29.08	1.40	4	1934
2427532.0	21	59	21.01	0.39	6	-10	20	46.46	- 0.51	6	1934
2427537.2	22	18	8.12	2.28	6	- 9	17	9.61	1.30	6	1934
2427540.7	22	31	9.63	1.71	6	- 8	27	23.35	2.03	6	1934
2427545.3	22	48	38.27	2.80	4	- 7	14	11.71	1.86	4	1934
2427548.0	22	59	3.04	2.18	1						1934
2427548.3						- 6	22	5.80	- 0.17	3	1934
2427553.0	23	18	34.54	1.22	4	- 4	54	10.92	- 0.32	4	1934
2427557.0	23	34	23.64	0.30	4	- 3	33	58.65	- 0.10	6	1934
2427560.0	23	46	21.68	0.05	3	- 2	30	59.80	- 1.68	3	1934
2427565.0	0	6	29.53	2.41	5	- 0	41	25.02	- 0.22	5	1934
2427569.3	0	23	58.70	0.66	6	0	56	27.04	- 0.02	6	1934
2427573.2						2	27	18.76	0.29	6	1934
2427573.4	0	40	48.31	1.06	7						1934
2427578.7	1	2	47.48	2.29	3	4	37	30.97	1.13	3	1934
2427582.2	1	17	28.16	0.10	6	6	0	51.02	- 1.67	6	1934
2427586.8	1	36	59.07	1.81	6	7	50	5.42	0.81	6	1934
2427590.4	1	52	27.24	1.72	5						1934
2427590.8						9	23	59.67	1.62	6	1934
2427595.3						11	7	27.01	0.47	6	1934
2427595.6	2	15	8.33	0.48	7						1934
2427601.7	2	42	18.68	1.89	6	13	28	34.16	3.16	6	1934
2427605.4	2	59	6.50	2.13	9	14	45	48.26	1.02	9	1934
2427609.3						16	3	0.68	2.66	4	1934
2427609.6	3	18	28.80	1.45	5						1934
2427613.3	3	35	49.36	1.35	6						1934
2427613.4						17	18	43.85	2.06	7	1934
2427617.5	3	55	49.93	3.36	6	18	28	8.03	0.86	6	1934
2427621.8	4	16	40.27	1.81	5	19	33	18.13	0.66	6	1934
2427626.5	4	39	50.70	3.48	4	20	34	35.12	- 1.64	4	1934
2427630.3	4	58	51.37	1.09	3	21	15	52.90	- 0.52	3	1934
2427634.4	5	19	36.90	1.45	5						1934
2427635.0						21	55	57.23	2.08	6	1934
2427638.3	5	39	33.72	3.11	8						1934
2427638.4						22	16	54.87	0.85	7	1934
2427642.7	6	2	15.01	2.30	3	22	33	23.42	0.69	3	1934
2427645.5	6	16	45.75	1.36	4	22	37	54.44	- 0.49	2	1934
2427650.0	6	40	9.70	0.94	1	22	34	43.21	- 1.01	1	1934
2427651.8	6	49	31.98	2.18	4	22	29	49.11	- 0.68	4	1934
2427657.0	7	16	35.00	1.75	2						1934
2427658.0						21	56	57.81	- 0.23	1	1934
2427661.3						21	29	31.32	0.39	6	1934
2427661.6	7	40	24.66	0.25	5						1934
2427666.0	8	3	2.73	0.06	4	20	38	48.48	- 0.46	4	1934
2427671.1	8	29	1.07	1.38	7	19	28	57.30	- 1.22	7	1934
2427675.3	8	50	9.26	0.81	6	18	20	28.45	- 1.74	6	1934

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	H	M	S	"		O	"	"	"		
2427680.4						16	44	57.52	- 0.95	7	1934
2427680.5	9	15	58.75	1.44	6						1934
2427682.0	9	23	21.27	0.27	2	16	12	22.19	- 0.99	2	1934
2427687.5	9	50	6.98	3.89	6	14	11	39.10	- 1.69	6	1934
2427692.2						12	18	49.94	- 1.41	5	1934
2427692.3	10	13	6.75	- 0.44	4						1934
2427697.3	10	36	44.63	1.92	4	10	7	48.19	- 0.44	4	1934
2427700.3						8	47	8.63	0.16	4	1934
2427700.5	10	51	42.69	0.48	2						1934
2427706.8	11	20	53.86	3.04	5	5	44	59.64	- 1.01	5	1934
2427709.2	11	31	56.39	1.83	5	4	35	41.57	- 0.27	5	1934
2427713.8	11	53	1.79	- 0.76	5	2	20	36.65	- 2.30	5	1934
2427717.5	12	9	57.50	- 0.01	2	0	30	31.85	- 0.28	2	1934
2427721.8	12	29	38.20	1.71	9	- 1	38	8.93	- 1.44	9	1934
2427725.6	12	47	4.17	1.81	5	- 3	31	44.78	- 0.47	5	1934
2427729.5	13	5	2.47	0.24	4	- 5	27	28.94	- 1.32	4	1934
2427736.4						- 8	47	48.89	- 0.45	5	1934
2427736.5	13	37	37.92	0.0	6						1934
2427740.5	13	56	31.14	- 0.49	2	-10	42	45.59	- 0.14	2	1934
2427743.0	14	8	26.54	- 1.01	1	-11	50	53.14	- 1.44	1	1934
2427772.0	16	35	16.56	1.61	1	-21	58	27.48	0.07	1	1934
2427777.8	17	6	31.19	- 0.40	5	-23	3	57.63	0.83	5	1934
2427784.0	17	40	22.93	3.59	3	-23	48	7.11	- 0.57	3	1934
2427786.0	17	51	22.09	0.95	2	-23	56	23.34	1.80	2	1934
2427790.8	18	17	47.70	0.98	4	-24	4	13.47	1.02	4	1934
2427793.5	18	32	39.60	- 1.19	2	-24	1	3.93	1.51	2	1934
2427799.0	19	2	50.79	1.43	1	-23	37	54.48	0.05	1	1934
2427806.0	19	40	50.76	1.68	5	-22	36	39.83	- 1.30	4	1935
2427811.7	20	11	15.22	3.98	3	-21	21	52.23	- 1.04	3	1935
2427815.0	20	28	34.62	- 0.92	3	-20	29	2.11	0.14	3	1935
2427819.7	20	52	51.95	0.57	3						1935
2427820.5						-18	46	45.15	- 2.52	2	1935
2427826.7	21	28	9.14	- 0.50	3	-16	32	7.42	- 0.80	3	1935
2427832.7	21	57	33.96	0.71	3	-14	5	5.20	- 0.40	3	1935
2427837.0	22	18	12.12	0.07	3	-12	11	8.75	- 1.14	3	1935
2427840.2	22	33	20.27	- 2.15	5	-10	42	26.20	- 3.91	5	1935
2427846.0	23	0	20.88	- 0.06	4	- 7	54	36.62	- 2.22	4	1935
2427850.3	23	20	4.19	- 1.49	3	- 5	45	37.45	- 1.73	3	1935
2427854.5	23	39	8.55	0.98	4	- 3	36	57.84	- 2.78	4	1935
2427861.2	0	9	17.97	- 0.83	5	- 0	8	29.97	- 2.57	5	1935
2427863.0	0	17	22.23	0.61	1	0	47	47.26	- 0.76	1	1935
2427869.0	0	44	15.13	1.92	3	3	54	49.14	- 3.78	4	1935
2427874.3	1	8	3.35	- 0.84	4						1935
2427874.4						6	40	45.28	- 2.35	5	1935
2427879.0	1	29	17.55	- 0.59	3	8	58	46.81	- 0.57	3	1935
2427882.0	1	42	56.48	0.86	4	10	26	31.89	- 1.68	4	1935
2427887.5						13	1	34.56	- 1.70	2	1935
2427887.7	2	9	8.06	0.38	3						1935
2427891.0	2	24	29.17	0.25	1	14	35	33.24	- 0.86	1	1935
2427896.4						16	51	59.13	0.0	5	1935
2427896.5	2	50	25.45	- 1.20	4						1935
2427902.3	3	18	17.30	- 0.07	3						1935
2427902.5						19	11	25.72	- 0.98	2	1935
2427906.5	3	38	47.61	- 1.17	2	20	33	13.54	0.13	2	1935
2427910.7	3	59	33.86	- 0.12	3	21	49	58.80	1.47	3	1935

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	H	M	S	"		O	"		
2427916.2	4	27	7.29	- 0.87	5	23 15	7.12	- 0.31	5 1935
2427919.0	4	41	17.04	- 0.37	2	23 51	21.74	- 0.55	2 1935
2427922.5	4	59	5.15	0.0	2	24 29	36.75	- 0.13	2 1935
2427925.0	5	11	51.02	0.54	2	24 51	58.50	- 1.32	2 1935
2427931.5	5	45	6.16	- 1.10	6	25 30	21.60	- 0.39	6 1935
2427937.4	6	15	9.67	- 2.24	5	25 40	3.59	- 0.87	5 1935
2427939.7	6	26	47.58	- 0.61	3	25 37	23.78	0.85	3 1935
2427944.8	6	52	18.70	- 3.85	5	25 18	46.47	1.32	5 1935
2427951.7	7	26	2.43	- 0.85	3	24 26	45.66	0.21	3 1935
2427958.8	7	59	28.88	- 1.32	5	23 3	26.62	1.72	5 1935
2427962.5	8	16	17.72	- 2.48	4	22 9	11.42	1.56	4 1935
2427967.0	8	36	6.68	- 1.18	4	20 54	16.91	0.94	4 1935
2427972.8	9	0	32.42	- 1.23	5	19 5	1.13	0.31	5 1935
2427979.4	9	26	42.99	- 2.76	9	16 46	10.55	1.68	9 1935
2427986.3	9	52	6.92	- 3.29	3	14 8	22.32	1.68	3 1935
2427991.0	10	8	10.58	- 1.30	3	12 15	46.83	2.48	3 1935
2427994.2	10	18	29.34	- 0.83	5	10 57	40.22	3.91	5 1935
2428000.0	10	35	46.72	- 2.82	4	8 34	53.53	1.04	4 1935
2428004.5	10	47	49.77	- 0.57	2	6 44	43.86	0.71	2 1935
2428007.8	10	55	49.58	- 1.22	4				1935
2428008.0						5 20	28.73	2.08	3 1935
2428014.0	11	8	40.40	- 2.39	3	3 1	25.09	0.52	3 1935
2428016.5	11	12	56.92	0.18	2	2 6	27.19	0.85	2 1935
2428022.6	11	20	48.77	0.47	5	0 3	5.78	3.20	5 1935
2428028.4						- 1 34	37.91	1.39	5 1935
2428028.8	11	24	27.72	- 2.22	4				1935
2428035.7	11	22	33.21	- 2.75	3	- 2 58	43.62	2.96	3 1935
2428039.7	11	18	25.72	- 3.12	3	- 3 21	13.33	2.32	3 1935
2428045.0	11	9	50.56	- 2.91	3	- 3 20	40.35	2.70	3 1935
2428048.0	11	3	44.16	- 0.46	1	- 3 4	23.54	1.13	1 1935
2428057.1	10	43	19.68	- 1.19	7	- 1 14	14.42	3.78	7 1935
2428059.3	10	38	48.03	0.60	4	- 0 38	19.48	2.36	4 1935
2428064.2	10	30	30.32	0.10	6	0 45	14.70	2.18	6 1935
2428068.3	10	26	2.95	1.34	4	1 52	19.89	0.22	4 1935
2428071.3	10	24	24.59	- 1.94	4	2 36	32.27	- 1.02	4 1935
2428076.0	10	24	38.46	0.10	1	3 33	58.36	- 0.50	1 1935
2428078.6	10	26	10.54	1.77	7	3 58	34.21	- 1.43	7 1935
2428082.3	10	29	57.23	5.00	4	4 24	7.35	- 2.36	4 1935
2428086.0	10	35	25.65	2.22	4	4 38	24.86	- 1.50	4 1935
2428092.2	10	47	52.23	1.27	5	4 37	32.61	- 1.39	5 1935
2428098.6	11	4	11.31	4.09	5	4 6	16.00	- 0.74	5 1935
2428102.0	11	13	59.44	3.43	3	3 38	18.88	- 2.36	3 1935
2428107.0	11	29	32.92	2.80	2	2 44	33.35	- 0.71	2 1935
2428108.0	11	32	48.19	2.70	1	2 32	7.08	- 1.24	1 1935
2428113.5	11	51	25.16	1.74	2	1 14	50.20	- 0.90	2 1935
2428117.8	12	6	43.45	2.01	5	0 4	56.11	- 1.77	5 1935
2428121.0	12	18	29.20	4.21	3	- 0 51	43.76	- 1.71	3 1935
2428125.8	12	36	39.29	4.82	4	- 2 22	58.08	- 3.46	4 1935
2428129.0	12	49	5.04	0.78	1				1935
2428132.0						- 4 29	20.35	0.46	1 1935
2428134.5	13	10	59.77	5.70	4	- 5 22	19.87	- 3.56	4 1935
2428140.5	13	35	38.06	3.80	4	- 7 32	11.77	- 1.78	4 1935
2428144.3	13	51	37.76	2.41	3	- 8 55	23.66	- 1.89	3 1935
2428148.3	14	8	47.94	0.66	3	-10 22	43.47	- 1.54	3 1935
2428155.5	14	40	35.46	1.87	2	-12 56	20.69	- 1.15	2 1935

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	H	M	S	"		°	'	"	"		
2428159.7	14	59	40.13	4.43	3	-14	22	0.75	- 2.06	3	1935
2428165.3	15	25	42.79	3.17	3	-16	9	25.03	- 1.07	3	1935
2428175.5						-18	57	41.43	- 1.14	4	1936
2428176.0	16	17	22.32	3.76	3						1936
2428178.5	16	29	47.02	0.30	2	-19	38	50.96	- 0.59	2	1936
2428183.5	16	54	58.20	4.32	4	-20	37	35.24	- 1.76	4	1936
2428189.6	17	26	15.07	1.34	5						1936
2428189.7						-21	31	33.31	- 0.81	6	1936
2428193.3	17	45	27.88	5.04	3	-21	52	34.51	- 1.97	3	1936
2428198.0	18	10	2.61	4.76	3	-22	7	57.41	- 1.59	3	1936
2428201.7	18	29	28.57	2.72	3	-22	10	9.97	2.51	3	1936
2428205.3	18	48	24.62	2.03	6	-22	3	53.46	1.81	6	1936
2428210.0	19	13	6.21	2.82	3	-21	43	4.17	0.29	3	1936
2428212.5	19	26	11.68	- 0.48	2	-21	26	12.29	0.38	2	1936
2428218.6	19	57	55.92	2.77	5	-20	28	36.01	1.36	5	1936
2428223.5	20	23	7.16	2.50	2	-19	26	6.27	1.22	2	1936
2428227.5	20	43	25.48	0.57	2	-18	25	2.43	0.61	2	1936
2428231.3	21	2	29.03	3.22	3	-17	19	11.96	0.09	3	1936
2428234.5	21	18	20.81	1.63	2	-16	18	11.85	1.94	2	1936
2428237.5	21	33	3.76	- 0.17	2	-15	16	46.79	- 0.58	2	1936
2428247.5	22	21	4.27	1.32	2	-11	25	51.14	0.48	2	1936
2428252.0	22	42	11.17	- 1.86	1	- 9	31	2.64	- 0.45	1	1936
2428256.0	23	0	44.57	1.95	2	- 7	44	31.31	0.67	1	1936
2428263.0	23	32	48.60	- 0.27	1	- 4	30	23.69	1.18	1	1936
2428273.5	0	20	21.31	- 0.32	4	0	31	42.83	- 0.18	4	1936
2428277.4	0	37	58.41	0.89	5	2	24	59.67	1.19	5	1936
2428281.2	0	55	10.43	0.0	6	4	14	51.40	- 0.44	6	1936
2428283.3	1	4	42.35	- 1.04	3	5	15	7.84	- 0.05	3	1936
2428287.5	1	23	51.38	- 0.34	2	7	14	11.20	- 0.65	2	1936
2428290.3	1	36	42.29	0.16	3	8	32	8.26	0.92	3	1936
2428295.2	1	59	23.48	0.91	6	10	44	52.27	0.54	6	1936
2428299.3	2	18	36.80	2.16	4	12	31	30.74	0.04	4	1936
2428303.7	2	39	31.48	1.67	7	14	20	29.70	2.94	7	1936
2428308.4	3	2	13.42	- 0.08	8	16	9	27.02	- 0.40	8	1936
2428311.3	3	16	25.67	0.28	3						1936
2428311.5						17	16	32.04	- 0.18	4	1936
2428316.0	3	39	46.57	- 0.68	2						1936
2428316.3						18	51	56.25	0.64	4	1936
2428322.0	4	10	10.38	- 1.45	3	20	30	17.49	- 0.16	3	1936
2428326.3	4	32	20.88	- 1.39	3	21	32	37.70	- 0.42	3	1936
2428330.0	4	51	40.03	- 0.97	3						1936
2428330.5						22	22	50.25	- 0.52	2	1936
2428336.0	5	23	23.46	- 1.51	3	23	11	34.52	- 0.61	3	1936
2428359.3	7	28	4.44	0.40	3	22	47	8.80	1.49	3	1936
2428365.3	7	59	37.32	- 0.43	3						1936
2428365.8						21	33	52.88	0.54	4	1936
2428370.5	8	26	31.26	- 1.19	2						1936
2428371.0						20	16	10.23	- 0.61	3	1936
2428374.0	8	44	21.43	- 1.12	2	19	24	10.47	0.62	2	1936
2428383.7	9	32	33.56	- 0.16	3	16	3	53.03	0.90	3	1936
2428392.5	10	14	45.20	0.12	4	12	26	19.05	1.67	2	1936
2428397.0	10	35	49.70	0.38	3	10	24	34.07	0.69	3	1936
2428400.5	10	52	1.05	- 0.17	2	8	45	57.12	1.00	2	1936
2428406.3	11	18	31.22	- 1.59	7	5	56	27.09	- 1.03	7	1936
2428410.5						3	50	9.91	- 0.16	2	1936

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	H	M	S	"		°	'	"	
2428412.0	11	44	16.14	- 0.70	1				1936
2428415.0	12	4	24.65	0.10	2	1	32	40.00	1936
2428419.5	12	17	54.80	- 0.61	2				1936
2428420.0						- 1	1	30.39	1936
2428424.0	12	38	5.29	- 0.54	3	- 3	4	55.80	1936
2428428.0	12	56	4.71	- 1.50	4	- 5	7	34.51	1936
2428432.5	13	16	26.28	- 2.25	2	- 7	23	38.83	1936
2428437.0	13	36	59.15	0.47	1	- 9	36	38.92	1936
2428441.0	13	55	26.78	- 2.30	1	-11	31	21.78	1936
2428444.0	14	9	26.50	- 2.49	1	-12	54	41.14	1936
2428454.5	14	59	38.63	- 0.57	2	-17	22	57.04	1936
2428461.5	15	34	18.01	- 0.49	2	-19	56	7.46	1936
2428463.0						-20	25	46.01	1936
2428463.7	15	45	23.70	- 1.82	3				1936
2428471.7	16	26	31.08	- 2.32	3	-22	52	21.71	1936
2428476.5	16	51	42.83	- 0.35	2	-23	53	1.54	1936
2428483.0	17	26	18.29	- 1.11	3	-24	50	2.24	1936
2428487.0	17	47	45.96	- 1.42	3	-25	9	59.83	1936
2428491.3	18	10	53.26	- 3.25	7	-25	18	15.77	1936
2428497.0	18	41	27.45	- 2.72	4	-25	7	58.60	1936
2428503.0	19	13	18.66	- 1.32	1	-24	31	16.30	1936
2428506.2	19	30	5.07	- 1.52	5	-24	1	12.24	1936
2428509.5	19	47	11.01	- 0.52	2	-23	22	48.57	1936
2428513.5	20	7	35.78	- 2.53	2	-22	26	41.12	1936
2428517.5	20	27	37.80	- 1.46	4	-21	20	38.62	1936
2428520.5	20	42	22.89	- 2.40	4	-20	25	2.31	1936
2428525.2	21	4	59.73	- 0.98	5	-18	48	20.34	1936
2428532.3	21	37	57.10	- 2.94	4	-16	2	46.83	1936
2428539.0	22	7	43.38	- 5.19	5	-13	8	46.25	1937
2428542.0	22	20	38.93	- 2.40	2	-11	46	19.75	1937
2428547.0	22	41	39.10	- 2.88	3	- 9	23	57.63	1937
2428552.0	23	2	0.02	- 0.62	3	- 6	56	54.35	1937
2428554.3	23	11	8.54	- 2.56	3				1937
2428554.5						- 5	42	9.62	1937
2428560.3	23	34	21.52	- 2.20	3	- 2	46	51.95	1937
2428562.5	23	42	38.51	- 2.26	2	- 1	40	6.84	1937
2428568.7	0	5	19.49	- 1.71	3	1	27	23.29	1937
2428574.0	0	23	54.67	- 5.70	3	4	5	16.40	1937
2428576.5	0	32	24.44	- 3.14	4	5	18	25.06	1937
2428582.3	0	51	21.21	- 5.02	4	8	3	25.65	1937
2428587.5	1	7	17.24	- 3.31	2	10	24	8.43	1937
2428590.5	1	15	56.48	- 2.53	2	11	41	25.37	1937
2428595.3	1	28	48.79	- 5.68	6	13	38	3.20	1937
2428599.5	1	38	55.00	- 3.62	2	15	11	47.93	1937
2428603.5						16	32	38.48	1937
2428605.0	1	50	8.01	- 3.59	1				1937
2428609.7	1	57	29.65	- 3.86	3				1937
2428610.0						18	22	49.22	1937
2428615.5	2	3	3.21	- 3.87	2	19	30	28.22	1937
2428619.0	2	4	12.66	- 2.66	2	19	58	26.29	1937
2428622.8	2	3	24.42	- 4.94	4	20	13	4.35	1937
2428625.3	2	1	40.88	- 3.46	3	20	12	41.83	1937
2428630.3	1	55	30.66	- 5.04	4	19	45	40.85	1937
2428635.3	1	46	21.55	- 3.66	4	18	42	24.44	1937
2428644.4	1	26	43.93	- 1.39	5	15	31	27.98	1937

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	H	M	S	"		O	"	"	"		
2428648.5	1	18	59.65	- 0.59	2	13	50	54.27	- 0.85	2	1937
2428652.8	1	12	54.64	0.09	5	12	9	56.97	- 0.11	5	1937
2428656.8	1	9	34.75	0.92	4	10	47	50.55	1.34	4	1937
2428660.7	1	8	37.72	0.33	3	9	43	10.06	1.80	3	1937
2428665.3	1	10	19.35	- 0.47	3	8	48	47.51	2.25	3	1937
2428670.7	1	15	48.14	- 0.95	3	8	14	56.67	0.74	3	1937
2428674.6	1	21	47.82	- 0.83	5	8	9	3.25	1.25	5	1937
2428678.7	1	29	40.99	1.89	6	8	17	36.79	2.23	6	1937
2428681.5	1	35	53.24	- 0.44	4	8	31	4.20	1.20	4	1937
2428688.8	1	54	42.84	2.40	6	9	29	53.02	1.05	6	1937
2428693.7	2	9	9.01	1.13	3	10	24	14.66	1.47	3	1937
2428701.5	2	34	31.84	- 0.44	4	12	6	50.42	1.28	4	1937
2428706.3	2	51	25.10	0.50	4	13	15	52.74	0.78	4	1937
2428709.2	3	2	2.78	2.82	6	13	58	36.93	1.08	6	1937
2428713.3	3	17	35.01	0.80	3	14	59	17.69	0.73	3	1937
2428717.3	3	33	17.58	1.18	3						1937
2428717.5						16	0	37.79	1.84	2	1937
2428723.0	3	56	33.36	3.80	5	17	17	35.08	2.71	5	1937
2428728.0	4	17	44.60	- 0.83	3	18	22	14.91	0.99	3	1937
2428732.0	4	35	11.36	1.10	4	19	9	7.33	0.62	4	1937
2428736.0	4	53	2.85	2.28	2	19	50	46.42	1.40	2	1937
2428743.5	5	27	32.57	1.40	2						1937
2428744.0						20	55	12.66	- 1.35	1	1937
2428749.3	5	55	0.08	2.17	7	21	21	59.31	1.35	7	1937
2428752.3	6	9	25.20	1.28	3	21	30	52.76	0.02	4	1937
2428758.3	6	38	35.48	1.92	4	21	34	17.70	0.40	4	1937
2428763.3	7	3	8.33	1.33	8	21	21	52.33	- 0.85	8	1937
2428770.0	7	36	11.82	0.85	3	20	42	53.20	- 0.16	3	1937
2428773.5	7	53	28.57	1.63	2	20	12	17.94	- 0.64	2	1937
2428776.5	8	8	15.65	1.06	2	19	40	35.42	0.27	2	1937
2428779.0	8	20	33.01	1.00	3	19	10	20.18	- 0.90	3	1937
2428784.5	8	47	26.41	1.40	2	17	52	1.64	0.44	2	1937
2428788.5	9	6	50.04	0.74	2	16	45	20.03	- 0.92	2	1937
2428792.1	9	24	9.31	2.14	7	15	38	45.32	- 1.67	7	1937
2428796.4	9	44	40.11	2.80	7	14	11	36.54	- 3.55	7	1937
2428800.4	10	3	34.74	3.28	7	12	43	42.81	- 1.19	7	1937
2428807.0	10	34	26.39	1.23	1	10	5	54.83	- 0.54	1	1937
2428808.5	10	41	23.90	1.10	2	9	28	5.66	- 0.96	2	1937
2428814.7	11	9	58.71	2.17	3	6	45	22.58	- 0.94	3	1937
2428819.3	11	31	1.77	2.92	4	4	39	7.58	- 2.20	4	1937
2428823.0	11	47	54.06	1.70	5	2	55	1.91	- 1.88	5	1937
2428828.5	12	12	56.91	3.26	4	0	17	25.80	- 0.96	4	1937
2428835.3	12	43	59.77	2.15	3	- 2	59	31.66	- 1.35	3	1937
2428839.7	13	4	12.97	1.35	3	- 5	6	29.00	0.43	3	1937
2428847.0	13	38	8.53	1.60	4	- 8	32	59.18	- 1.68	5	1937
2428850.3	13	53	41.01	2.20	3	-10	3	29.85	- 2.01	3	1937
2428857.0	14	25	43.88	2.72	4	-12	59	17.07	- 1.42	4	1937
2428861.3						-14	45	1.08	- 2.48	3	1937
2428862.0	14	50	8.97	0.17	2						1937
2428867.5	15	17	33.95	0.99	2	-17	5	10.63	- 1.73	2	1937
2428870.3	15	31	45.23	1.40	7						1937
2428870.5						-18	6	57.75	- 2.57	6	1937
2428875.5	15	58	31.00	3.11	8	-19	39	57.29	0.85	8	1937
2428879.0	16	16	49.28	1.83	5	-20	36	58.14	- 0.87	5	1937
2428882.2	16	33	44.96	1.65	5	-21	22	46.71	- 2.41	5	1937

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	H	M	S	"		O	"	"	"		
2428888.7	17	8	38.00	1.80	3	-22	35	49.18	- 1.14	3	1937
2428891.0	17	21	6.64	0.40	2	-22	54	53.68	- 0.40	2	1937
2428897.6	17	57	11.11	0.92	5	-23	28	59.46	0.45	5	1938
2428903.5	18	29	35.17	0.36	4	-23	32	50.07	0.34	4	1938
2428906.0	18	43	18.15	- 0.62	2	-23	26	48.11	- 0.05	3	1938
2428911.0	19	10	37.62	- 0.33	2	-23	1	8.18	1.99	2	1938
2428938.5	21	34	21.33	- 0.34	4	-15	49	44.23	0.32	4	1938
2428952.0	22	39	34.53	- 0.26	3	-10	2	5.96	0.26	3	1938
2428958.0	23	7	36.99	0.15	1	- 7	10	10.47	0.06	1	1938
2428959.8	23	15	56.51	0.66	4	- 6	17	8.31	0.78	4	1938
2428966.0	23	44	22.79	- 0.68	8	- 3	10	50.47	- 2.29	8	1938
2428969.8	0	1	40.65	1.03	6	- 1	14	46.34	- 0.42	6	1938
2428975.3	0	26	37.53	0.80	3	1	34	5.54	- 1.00	3	1938
2428979.8	0	47	2.21	- 1.27	6	3	51	47.56	- 2.30	5	1938
2428983.3	1	2	57.51	- 2.03	3	5	37	51.61	- 0.76	3	1938
2428987.0	1	19	52.38	1.07	3						1938
2428987.5						7	43	8.16	1.39	2	1938
2428991.8	1	41	59.31	0.74	5	9	48	9.70	- 0.67	5	1938
2428995.3	1	58	16.28	- 1.58	4	11	26	51.76	- 2.46	4	1938
2429001.7	2	28	28.35	- 0.88	3	14	18	24.80	1.37	3	1938
2429009.5	3	6	9.81	- 1.48	4	17	27	39.51	- 0.94	4	1938
2429016.3	3	39	54.68	- 1.66	3	19	50	39.72	- 2.32	3	1938
2429023.0	4	13	58.63	- 0.48	8	21	47	46.89	0.03	7	1938
2429026.0	4	29	28.11	- 1.12	4	22	31	40.29	- 1.08	4	1938
2429030.4	4	52	25.11	- 1.57	5						1938
2429030.5						23	26	52.08	- 1.02	4	1938
2429037.3	5	28	49.81	- 0.83	3	24	24	37.50	- 0.40	3	1938
2429044.0	6	4	26.92	- 0.39	1	24	49	51.45	0.13	1	1938
2429049.5	6	33	40.02	- 3.25	2	24	46	29.72	- 1.85	2	1938
2429052.0	6	46	53.60	0.23	2	24	37	51.13	0.31	2	1938
2429056.5	7	10	31.86	- 0.42	2						1938
2429056.7						24	9	38.90	- 1.77	3	1938
2429064.4	7	51	17.44	- 1.61	8	22	51	13.89	0.45	8	1938
2429070.8	8	23	24.82	0.28	4	21	17	39.49	1.12	4	1938
2429073.5	8	36	41.26	- 1.02	2	20	31	4.81	0.57	2	1938
2429078.0	8	58	25.52	- 0.85	1						1938
2429078.5						18	54	40.16	0.58	2	1938
2429081.0	9	12	38.45	- 1.13	1	18	1	53.93	1.41	1	1938
2429085.0	9	31	14.99	1.64	1	16	31	40.01	0.46	1	1938
2429092.0						13	38	49.29	1.51	3	1938
2429092.5	10	5	4.56	- 1.74	2						1938
2429096.5	10	22	35.05	- 0.45	2	11	39	14.09	2.97	2	1938
2429100.2						9	56	47.62	3.71	5	1938
2429100.5	10	39	44.91	- 1.12	4						1938
2429107.5						6	26	11.39	0.92	2	1938
2429108.0	11	11	6.32	- 1.03	1						1938
2429112.5	11	29	27.75	- 1.15	2	3	57	16.66	- 1.26	2	1938
2429115.5						2	26	51.84	2.62	2	1938
2429116.0	11	43	31.74	- 1.30	1						1938
2429119.5	12	1	17.12	- 0.99	2	0	25	31.09	0.99	2	1938
2429126.8	12	25	57.58	- 1.98	4	- 3	15	59.03	1.50	4	1938
2429131.0	12	42	7.91	- 3.34	3	- 5	22	13.32	2.13	3	1938
2429135.5	12	59	17.81	- 1.70	4	- 7	35	30.58	0.84	4	1938
2429141.0	13	20	3.38	- 0.49	2	-10	14	18.22	0.44	2	1938
2429144.0	13	31	16.30	- 0.90	1	-11	38	27.02	0.64	1	1938

J. E. D.	R. A.			O - C	WT.	DEC.	O - C			WT.	YEAR
	H	M	S	"		°	'	"	"		
2429150.3	13	54	32.33	- 2.04	4	-14	28	5.64	0.44	4	1938
2429154.5	14	9	47.35	- 1.61	2						1938
2429155.3						-16	34	34.92	4.33	3	1938
2429159.0	14	25	49.94	- 3.18	4	-18	2	54.88	- 1.20	4	1938
2429163.5	14	41	29.11	- 3.01	6	-19	43	25.81	1.13	6	1938
2429168.7	14	58	54.89	- 2.34	3	-21	29	17.97	- 0.03	3	1938
2429171.0	15	6	19.85	- 3.59	3	-22	12	15.67	3.93	3	1938
2429175.0	15	18	41.05	- 2.15	5	-23	21	4.62	0.72	5	1938
2429177.5	15	25	58.92	- 2.80	4	-23	59	59.29	1.42	4	1938
2429183.2	15	41	5.36	- 5.63	6	-25	16	9.51	1.93	6	1938
2429187.5	15	50	44.20	- 2.64	4						1938
2429188.0						-26	5	40.63	0.73	3	1938
2429190.6	15	56	32.63	- 3.56	5	-26	26	24.95	1.05	5	1938
2429197.6	16	5	18.75	- 4.49	5	-26	58	25.43	2.86	5	1938
2429202.3	16	7	10.06	- 3.78	3	-26	57	31.74	3.79	3	1938
2429205.2	16	6	29.62	- 5.12	5	-26	46	33.70	2.91	5	1938
2429211.0	16	0	55.23	- 2.57	2	-25	57	32.51	1.37	2	1938
2429218.0	15	47	55.08	- 4.35	1	-24	7	57.11	1.93	1	1938
2429227.7	15	26	11.94	- 1.16	3	-20	32	16.24	1.39	3	1938
2429232.0						-18	54	52.23	0.76	4	1938
2429232.2	15	18	7.01	- 1.54	5						1938
2429234.7	15	14	45.45	0.50	3	-17	59	19.62	- 1.16	3	1938
2429239.0	15	11	11.82	- 0.38	2	-16	44	26.87	1.14	1	1938
2429247.1						-15	17	55.38	- 2.54	7	1938
2429247.3	15	12	34.18	3.26	6						1938
2429251.7	15	17	22.15	2.23	3	-14	59	45.58	- 2.42	3	1938
2429255.7	15	23	49.93	2.96	3	-14	59	26.35	- 3.27	3	1938
2429262.0	15	37	27.72	1.37	2	-15	21	55.55	- 1.64	2	1938
2429267.0	15	50	49.36	1.89	1	-15	54	20.21	- 1.03	1	1939
2429272.3	16	7	3.16	3.08	4	-16	37	27.68	- 2.62	4	1939
2429276.3	16	20	31.68	4.33	3	-17	13	10.33	- 2.48	3	1939
2429282.2	16	42	2.95	4.18	5	-18	6	39.42	- 3.15	5	1939
2429286.0	16	56	48.71	0.66	2	-18	39	32.47	- 1.15	2	1939
2429291.0	17	17	10.08	1.91	2	-19	18	40.59	- 2.38	2	1939
2429294.0	17	29	49.78	0.82	1						1939
2429294.5						-19	42	5.34	- 0.40	2	1939
2429297.3	17	44	6.29	3.07	7	-19	57	56.99	- 1.19	7	1939
2429303.0	18	9	30.60	1.64	8	-20	20	54.86	- 2.04	8	1939
2429307.7	18	31	3.01	0.59	3	-20	29	8.88	- 0.07	3	1939
2429311.5	18	48	46.12	2.01	2	-20	28	2.49	- 0.40	2	1939
2429316.5	19	12	22.64	2.16	4	-20	15	19.71	1.26	4	1939
2429322.0	19	38	35.40	1.07	1	-19	46	6.27	- 0.73	1	1939
2429325.5	19	55	20.06	2.36	2	-19	19	0.12	2.30	2	1939
2429330.0	20	16	52.07	1.54	4	-18	34	35.92	2.38	4	1939
2429333.3	20	32	37.93	2.67	3	-17	55	17.13	1.28	3	1939
2429338.5	20	57	21.60	2.96	6	-16	42	9.59	1.84	6	1939
2429342.5	21	16	14.95	3.29	2	-15	37	4.89	1.43	2	1939
2429348.3	21	43	22.49	3.38	3	-13	50	9.25	2.81	3	1939
2429351.5	21	58	11.68	1.57	2	-12	45	21.12	0.49	2	1939
2429358.3	22	29	20.71	1.42	4	-10	15	26.73	1.48	4	1939
2429360.5	22	39	19.79	1.10	2	- 9	23	46.83	2.26	2	1939
2429366.5	23	6	21.52	2.94	4	- 6	56	20.08	2.60	4	1939
2429375.0						- 3	14	38.56	1.00	4	1939
2429375.3	23	45	34.61	0.47	3						1939
2429379.5	0	4	11.24	2.42	2	- 1	13	11.85	1.41	2	1939

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	H	M	S	"		°	'	"	"		
2429387.7	0	40	29.59	0.83	3	2	31	21.43	2.93	3	1939
2429391.7	0	58	16.29	1.61	3	4	20	57.74	3.50	3	1939
2429397.5						6	58	4.43	2.83	2	1939
2429398.0	1	26	28.66	2.22	3						1939
2429401.0	1	40	1.77	0.14	2	8	31	0.07	0.58	2	1939
2429404.0	1	53	40.72	- 0.70	1	9	49	6.50	0.72	1	1939
2429409.5	2	18	59.96	2.14	4	12	7	26.57	2.12	4	1939
2429413.7	2	38	37.60	0.81	3	13	47	50.30	1.25	3	1939
2429417.0	2	54	14.99	0.94	3	15	2	55.81	1.65	3	1939
2429421.6	3	16	20.80	1.52	5	16	41	9.76	1.45	5	1939
2429425.0	3	32	55.73	1.14	3	17	48	21.89	1.25	3	1939
2429429.3	3	54	12.54	0.07	3	19	5	58.95	0.50	3	1939
2429435.7	4	26	30.31	0.76	3	20	44	31.94	2.58	3	1939
2429440.3	4	50	8.48	1.76	4	21	41	27.17	1.32	4	1939
2429444.5	5	11	59.39	0.14	2	22	22	26.66	0.65	2	1939
2429452.4	5	53	37.65	0.98	5	23	9	11.90	0.94	5	1939
2429456.4	6	14	52.94	1.56	8	23	17	3.97	- 1.07	8	1939
2429460.6	6	37	14.63	0.72	5	23	13	37.82	- 1.50	5	1939
2429469.0	7	21	49.74	2.22	4	22	30	47.49	- 1.52	4	1939
2429471.5	7	35	0.08	1.20	2	22	8	55.57	- 1.97	2	1939
2429474.5	7	50	43.19	0.11	2	21	37	21.92	- 0.76	2	1939
2429478.0	8	8	55.05	0.44	4	20	53	21.53	- 1.14	4	1939
2429484.4	8	41	43.80	1.06	7						1939
2429484.6						19	10	27.82	- 1.98	8	1939
2429488.3	9	1	23.92	0.81	3	18	2	11.58	0.69	3	1939
2429492.4	9	21	47.57	1.32	7	16	38	23.43	0.29	7	1939
2429497.8	9	48	12.21	- 0.56	4	14	36	14.93	1.62	4	1939
2429523.8	11	49	38.95	- 0.26	4	2	37	4.48	0.90	4	1939
2429530.8	12	21	29.56	1.77	5	- 0	55	45.84	0.02	5	1939
2429533.8	12	35	8.53	- 0.14	4	- 2	27	17.25	- 2.24	4	1939
2429542.4	13	14	30.50	- 1.27	7	- 6	46	45.23	1.22	7	1939
2429547.0	13	35	49.59	0.56	4	- 9	1	48.29	- 1.10	5	1939
2429552.0	13	59	17.83	- 0.81	3	-11	23	43.31	0.62	3	1939
2429555.3	14	14	59.52	- 0.94	4	-12	53	49.97	3.12	4	1939
2429558.5	14	30	23.15	- 0.56	4	-14	18	2.36	- 0.22	4	1939
2429563.3	14	53	49.66	- 1.52	3	-16	17	23.25	1.07	3	1939
2429566.5	15	9	42.45	- 0.48	2	-17	31	42.25	2.36	2	1939
2429570.2	15	28	19.76	- 1.19	5	-18	51	47.66	0.94	5	1939
2429575.5	15	55	29.99	- 2.04	4	-20	34	14.90	1.74	4	1939
2429583.3	16	36	29.85	- 0.78	4	-22	35	20.97	1.88	4	1939
2429589.5	17	9	48.30	- 2.72	4	-23	43	21.88	2.68	4	1939
2429593.5	17	31	32.59	- 2.36	2	-24	12	53.45	3.31	2	1939
2429597.0	17	50	40.23	- 1.25	3	-24	29	9.02	2.49	3	1939
2429604.7	18	32	52.10	- 1.96	3	-24	32	35.68	0.42	3	1939
2429609.7	19	0	10.12	- 1.73	3	-24	10	57.51	- 1.32	3	1939
2429618.0	19	44	53.21	- 0.43	3	-22	54	43.82	- 1.94	3	1939
2429625.5	20	24	16.75	- 0.24	2	-21	5	26.14	- 2.32	2	1939
2429632.7	21	0	57.45	- 0.88	3	-18	48	18.69	- 1.58	3	1940
2429638.5	21	29	38.12	- 1.26	4	-16	37	55.80	- 0.48	4	1940
2429642.5	21	48	57.56	- 1.97	2	-14	59	5.90	- 0.96	2	1940
2429646.2	22	6	30.93	- 3.33	5	-13	22	1.90	- 0.85	5	1940
2429651.3	22	30	14.45	- 1.78	3						1940
2429651.5						-10	54	57.46	- 1.81	2	1940
2429654.0	22	42	35.73	- 0.97	3	- 9	42	46.19	- 1.78	4	1940
2429659.0	23	5	8.40	- 1.00	2	- 7	14	2.26	- 0.24	2	1940

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	H	M	S	"		O	"	"	"		
2429673.5	0	8	41.90	- 2.76	4	0	17	5.39	- 1.76	4	1940
2429680.3	0	37	56.40	- 2.42	4	3	50	57.55	- 1.26	4	1940
2429684.0	0	53	47.20	- 3.83	3	5	45	58.26	- 2.84	3	1940
2429688.0	1	10	54.64	- 3.24	3	7	48	24.61	- 2.48	3	1940
2429691.5	1	25	54.66	- 4.14	2	9	33	20.90	- 2.55	2	1940
2429695.5						11	30	9.47	- 0.82	2	1940
2429697.0	1	49	33.93	- 2.41	1						1940
2429701.0	2	6	51.32	- 2.11	3	14	3	59.12	- 1.35	3	1940
2429703.5	2	17	42.17	- 1.61	2	15	10	52.59	- 1.33	2	1940
2429710.0	2	46	3.26	- 2.96	1	17	54	23.29	- 2.66	1	1940
2429715.8	3	11	30.68	- 4.85	5	20	5	53.62	- 3.42	5	1940
2429723.0	3	43	13.22	- 3.79	3	22	27	27.41	- 2.34	3	1940
2429729.4	4	11	19.38	- 3.91	5	24	11	4.83	- 1.83	5	1940
2429738.0	4	48	25.32	- 0.70	1	25	54	59.56	0.99	1	1940
2429743.7	5	12	8.34	- 4.00	3	26	40	52.45	- 1.77	3	1940
2429749.5	5	35	8.48	- 0.24	2	27	9	6.06	- 0.68	2	1940
2429759.0	6	9	9.98	- 4.49	3	27	17	39.60	0.28	3	1940
2429763.2	6	22	14.61	- 5.00	6	27	8	5.39	0.0	6	1940
2429766.5	6	31	26.25	- 2.74	2	26	55	33.43	- 1.95	2	1940
2429771.5	6	43	13.67	- 4.14	4	26	29	15.54	- 1.22	4	1940
2429784.8	6	58	34.56	- 5.52	4	24	45	43.84	3.06	4	1940
2429787.5	6	58	16.72	- 2.26	2	24	20	0.94	0.10	2	1940
2429796.5	6	48	8.24	- 4.41	2	22	44	45.33	- 1.24	2	1940
2429801.5	6	37	9.85	- 3.66	2	21	46	6.99	0.04	2	1940
2429810.0	6	14	38.27	- 2.66	1	20	4	12.58	- 0.07	1	1940
2429813.0	6	7	4.32	- 1.68	3	19	31	9.03	1.97	3	1940
2429817.1	5	58	11.05	- 3.47	7						1940
2429817.4						18	49	7.96	1.61	8	1940
2429821.7	5	50	58.62	- 2.30	6	18	17	54.78	2.67	6	1940
2429828.0	5	46	38.65	0.69	5	17	51	40.33	1.63	5	1940
2429831.7	5	47	7.29	- 0.88	6	17	46	22.09	1.18	6	1940
2429835.0						17	46	52.94	1.82	2	1940
2429835.3	5	49	36.01	- 1.02	3						1940
2429841.0	5	57	9.93	0.41	2	17	57	0.62	1.50	2	1940
2429843.8						18	4	20.37	2.10	5	1940
2429844.0	6	2	43.46	0.98	4						1940
2429849.8	6	16	4.74	0.02	4	18	21	56.97	2.34	4	1940
2429853.3	6	25	34.59	1.30	4	18	31	39.81	1.82	4	1940
2429862.7	6	55	24.05	- 0.16	3	18	47	20.52	0.68	3	1940
2429869.7	7	20	49.64	1.35	3	18	42	30.88	- 0.43	3	1940
2429872.5	7	31	35.17	1.06	2	18	35	27.72	- 0.55	2	1940
2429877.3	7	50	39.07	2.91	7	18	15	44.08	- 0.61	7	1940
2429880.8	8	4	57.67	2.71	5	17	54	54.02	- 0.89	5	1940
2429886.0	8	26	43.33	1.77	5	17	13	27.15	0.39	6	1940
2429890.7	8	46	47.42	2.80	7	16	24	55.65	- 0.56	7	1940
2429894.3	9	2	21.01	1.62	6	15	40	39.32	- 1.40	6	1940
2429898.7	9	21	31.57	1.52	3						1940
2429898.8						14	36	49.14	- 1.10	4	1940
2429901.0	9	31	35.95	2.80	4	14	2	16.24	- 0.50	3	1940
2429906.7	9	56	38.52	1.45	3	12	23	2.02	- 0.52	3	1940
2429911.8	10	19	5.52	2.24	5	10	43	8.99	- 0.80	5	1940
2429915.5	10	35	23.08	1.60	4	9	24	42.30	- 1.68	4	1940
2429920.0	10	55	12.10	2.50	4	7	43	13.40	- 2.18	4	1940
2429924.7	11	15	54.32	2.94	3	5	50	59.36	- 0.48	3	1940
2429927.3	11	27	21.84	0.73	3	4	46	30.44	- 2.08	3	1940

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	H	M	S	"		O	"	"	
2429933.0	11	52	31.52	0.38	2	2 20	22.78	- 0.88	2 1940
2429937.7	12	13	20.19	0.17	3	0 16	6.69	- 2.08	3 1940
2429941.5	12	30	13.90	1.02	4	- 1 25	57.06	- 2.28	4 1940
2429946.3	12	51	42.18	2.86	3	- 3 35	51.43	- 3.10	3 1940
2429952.0	13	17	27.37	0.33	1	- 6 9	47.50	- 1.20	1 1940
2429958.0	13	44	58.04	0.42	2	- 8 49	3.68	- 0.81	2 1940
2429963.0	14	8	16.76	3.22	2	-10 57	39.43	- 2.16	2 1940
2429966.3	14	23	52.72	2.41	3	-12 19	34.31	- 1.70	3 1940
2429969.0	14	36	46.88	3.57	3	-13 24	28.36	- 2.46	3 1940
2429973.3	14	57	36.00	0.99	3	-15 3	9.71	- 1.70	3 1940
2429982.3	15	42	20.20	2.72	3	-18 7	3.67	- 2.96	3 1940
2429987.3	16	7	52.92	3.07	3	-19 33	13.39	- 2.81	3 1940
2429993.0	16	37	34.15	2.18	2	-20 55	5.79	- 1.97	2 1940
2429998.7	17	7	46.55	1.04	3	-21 57	39.50	- 1.11	3 1941
2430004.7	17	40	0.22	1.73	3	-22 40	54.52	- 0.69	3 1941
2430009.4	18	5	26.85	2.59	5	-22 57	44.09	- 1.54	5 1941
2430013.3	18	26	37.16	0.87	3	-22 59	58.18	2.44	3 1941
2430017.2	18	47	47.17	2.97	5	-22 51	32.91	3.96	5 1941
2430021.7	19	12	7.28	0.81	3	-22 28	38.30	3.39	3 1941
2430025.0	19	29	51.65	0.31	2	-22 3	1.85	1.06	2 1941
2430028.6	19	49	4.17	0.72	5	-21 26	47.74	1.10	5 1941
2430031.5	20	4	24.73	1.47	2				1941
2430031.7						-20 48	53.13	1.87	3 1941
2430037.0	20	33	7.93	0.56	4	-19 30	28.02	1.78	4 1941
2430040.0	20	48	34.35	1.33	2	-18 38	53.25	2.11	2 1941
2430046.6	21	21	56.54	2.15	5	-16 28	49.25	2.28	5 1941
2430051.3	21	45	11.90	1.22	4	-14 43	42.93	2.14	4 1941
2430053.5	21	55	56.52	1.05	2	-13 51	21.06	2.66	2 1941
2430056.8	22	11	53.60	1.14	4	-12 29	26.59	3.00	4 1941
2430060.0	22	27	11.02	0.92	4	-11 6	30.69	2.16	4 1941
2430065.2						- 8 45	25.71	2.44	5 1941
2430065.5	22	53	5.81	2.40	4				1941
2430069.0	23	9	22.65	1.16	4	- 6 58	14.19	3.10	4 1941
2430073.2	23	28	44.70	2.03	5	- 4 56	39.74	1.97	5 1941
2430076.0	23	41	34.46	0.07	3	- 3 34	11.88	2.64	2 1941
2430081.0	0	4	22.45	0.12	1	- 1 5	8.98	1.95	1 1941
2430116.0	2	46	35.24	- 0.39	1	15 22	53.67	- 0.15	1 1941
2430124.0	3	25	54.41	- 0.97	3	18 21	40.76	- 0.59	3 1941
2430128.2	3	47	1.37	- 0.47	5	19 43	34.75	- 1.74	5 1941
2430132.5						20 57	45.35	- 0.62	4 1941
2430132.8	4	10	31.38	- 1.12	5				1941
2430136.0	4	27	5.46	- 0.54	3	21 50	17.49	- 1.40	3 1941
2430150.3	5	42	50.48	- 0.85	3	24 3	29.23	- 1.73	3 1941
2430156.0	6	13	27.95	- 0.88	4	24 17	12.42	- 1.12	4 1941
2430162.5	6	48	21.45	- 2.19	2	24 4	26.78	1.74	2 1941
2430165.3	7	3	19.00	- 0.09	3	23 49	37.48	- 1.14	3 1941
2430171.2	7	34	33.94	- 0.88	6	23 0	38.44	0.32	6 1941
2430176.0	7	59	37.30	- 1.53	1	22 3	38.68	1.48	1 1941
2430178.2	8	10	58.38	- 3.04	6	21 32	36.48	2.13	6 1941
2430186.0	8	50	26.66	- 3.06	1	19 19	38.49	2.98	1 1941
2430190.5	9	12	38.44	- 0.76	2	17 47	55.57	- 0.07	2 1941
2430193.5	9	27	11.82	- 0.99	2	16 41	23.87	1.06	2 1941
2430201.0	10	2	46.53	- 1.18	1	13 38	20.35	- 0.31	1 1941
2430207.0	10	30	27.59	- 1.90	1	10 57	28.10	1.03	1 1941
2430214.0	11	2	0.41	- 2.93	3	7 37	17.73	1.77	3 1941

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	H	M	S	"		O	"	"	"		
2430221.0	11	32	55.57	- 0.93	1	4	7	31.94	- 0.27	1	1941
2430226.8	12	3	45.21	- 3.84	4	1	9	20.24	2.40	4	1941
2430234.0	12	29	26.59	- 2.50	5	- 2	33	55.19	3.04	4	1941
2430242.0	13	4	8.64	- 1.92	2	- 6	39	42.90	2.01	2	1941
2430248.8	13	33	53.21	- 1.59	5	-10	2	31.64	3.35	5	1941
2430255.0	14	1	22.49	- 1.67	1	-12	59	21.85	- 0.31	1	1941
2430260.7	14	27	4.05	- 3.03	3	-15	32	36.52	1.97	3	1941
2430263.0	14	37	33.90	- 2.08	3	-16	31	24.38	3.43	3	1941
2430267.5	14	58	19.79	- 2.53	2	-18	20	40.25	2.12	2	1941
2430270.0	15	9	59.97	- 1.73	2	-19	17	43.76	1.74	2	1941
2430276.5	15	40	46.94	- 0.71	2	-21	32	24.86	- 0.42	2	1941
2430282.5	16	9	43.70	- 2.12	4	-23	17	8.35	4.00	4	1941
2430286.5	16	29	15.92	- 2.50	2	-24	15	29.34	3.49	2	1941
2430289.7	16	44	59.97	- 3.48	3	-24	55	9.00	3.05	3	1941
2430296.4	17	18	5.35	- 4.40	5						1941
2430296.5						-25	57	35.08	4.16	4	1941
2430304.3	17	56	56.02	- 2.63	3	-26	31	18.76	1.70	3	1941
2430310.0	18	24	29.15	- 2.94	3	-26	30	6.83	0.73	3	1941
2430312.3	18	35	25.27	- 2.10	3						1941
2430312.5						-26	22	52.37	- 3.78	4	1941
2430318.2	19	2	49.39	- 3.71	5	-25	51	29.44	- 2.73	5	1941
2430325.9						-24	38	53.68	- 2.38	7	1941
2430326.0	19	37	9.77	- 2.70	7						1941
2430332.5	20	3	37.03	- 4.14	4	-23	12	40.28	- 1.30	4	1941
2430339.2	20	28	20.00	- 3.75	6	-21	26	57.28	- 2.25	6	1941
2430345.8	20	49	39.45	- 3.78	4	-19	29	47.84	- 3.72	4	1941
2430350.7	21	3	12.21	- 4.45	3	-17	57	44.01	- 2.62	3	1941
2430358.5	21	19	53.31	- 4.07	2	-15	29	29.08	- 2.29	2	1942
2430367.5	21	29	54.25	- 3.99	2	-12	50	12.83	- 1.17	2	1942
2430373.0	21	30	10.62	- 8.64	6	-11	28	5.51	- 3.42	5	1942
2430375.4	21	28	46.67	- 9.48	5						1942
2430375.6						-10	55	15.67	- 2.82	5	1942
2430380.5						-10	6	27.68	- 0.85	2	1942
2430381.0	21	21	56.05	- 3.79	3						1942
2430383.0	21	18	21.17	- 7.00	3	- 9	49	0.97	- 2.81	3	1942
2430389.0	21	4	54.08	- 3.72	1	- 9	29	13.89	- 2.50	1	1942
2430395.4						- 9	40	34.60	- 3.67	5	1942
2430395.5	20	48	26.45	- 0.86	4						1942
2430399.3	20	39	38.32	1.21	3	-10	0	17.88	- 3.41	3	1942
2430403.3	20	32	6.30	1.98	4	-10	26	49.40	- 3.16	4	1942
2430408.7	20	25	44.56	1.25	3	-11	7	0.63	- 2.89	3	1942
2430413.3	20	24	9.13	2.56	4	-11	40	25.23	- 1.94	4	1942
2430415.5	20	24	37.74	0.25	2						1942
2430416.0						-11	58	10.66	- 0.74	1	1942
2430418.0	20	26	6.03	0.93	2	-12	9	59.80	1.70	2	1942
2430422.3						-12	30	46.93	2.98	3	1942
2430422.5	20	31	3.44	3.48	4						1942
2430427.7	20	40	2.52	1.54	3	-12	46	5.02	0.48	3	1942
2430431.7	20	48	57.18	1.63	3	-12	48	33.80	2.58	3	1942
2430435.5	20	58	44.87	1.16	2	-12	43	31.19	2.21	2	1942
2430440.0	21	11	43.51	0.94	3	-12	27	56.84	1.32	3	1942
2430444.5	21	25	55.00	1.54	2	-12	1	49.91	2.12	2	1942
2430449.5	21	42	48.64	2.56	2	-11	20	36.96	2.09	2	1942
2430452.5	21	53	24.34	2.08	2	-10	49	52.56	0.78	2	1942
2430457.3	22	10	55.75	2.36	3	- 9	51	37.90	2.20	3	1942

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	H	M	S	"		O	"	"	"		
2430464.7	22	38	58.42	1.23	3	- 8	1	41.19	1.21	3	1942
2430474.0	23	15	22.51	0.30	2	- 5	13	32.74	0.40	2	1942
2430478.0	23	31	18.53	1.71	2	- 3	52	40.53	1.16	2	1942
2430482.5	23	49	23.97	2.39	2	- 2	16	39.17	3.56	2	1942
2430486.0	0	3	35.09	1.16	3	- 0	58	54.69	1.66	3	1942
2430496.0	0	44	40.38	1.00	1	2	53	47.33	0.33	1	1942
2430500.0	1	1	21.20	0.69	1	4	29	24.37	1.13	1	1942
2430505.0	1	22	25.99	- 0.01	1	6	29	18.34	- 0.41	1	1942
2430508.5	1	37	21.77	0.55	2	7	52	51.10	0.52	2	1942
2430513.0						9	38	53.32	0.74	1	1942
2430514.0	2	1	9.49	2.93	2						1942
2430516.5	2	12	7.26	2.32	4	10	59	40.67	1.02	4	1942
2430525.0	2	50	9.95	1.32	2	14	6	28.81	0.76	2	1942
2430530.0	3	13	8.53	3.31	2	15	47	52.37	1.44	2	1942
2430534.0	3	31	51.31	0.10	1	17	3	13.43	1.63	1	1942
2430540.5	4	2	55.38	0.78	2	18	52	42.89	2.38	2	1942
2430542.0	4	10	12.45	0.11	1	19	15	23.05	- 1.85	1	1942
2430550.7	4	53	16.33	1.02	3	21	5	52.91	0.50	3	1942
2430555.8	5	19	5.36	1.19	5	21	51	58.11	- 0.85	5	1942
2430562.0	5	50	54.86	1.46	2	22	27	34.78	2.02	2	1942
2430564.5	6	3	50.95	2.12	2	22	35	15.83	1.80	2	1942
2430570.5	6	35	2.26	3.24	4	22	37	32.43	- 1.22	4	1942
2430573.0	6	48	3.73	0.58	1	22	31	40.63	- 1.14	1	1942
2430579.0	7	19	17.82	1.22	1	22	1	12.91	- 1.13	1	1942
2430586.0	7	55	29.71	0.41	1	20	56	52.11	- 1.25	1	1942
2430590.5	8	18	31.30	1.80	2	19	59	46.21	- 0.78	2	1942
2430595.5	8	43	48.56	1.23	2	18	42	40.46	- 2.33	2	1942
2430598.5	8	58	48.98	1.75	2	17	49	57.50	- 0.61	2	1942
2430603.0	9	21	4.74	0.47	1	16	22	22.42	0.71	1	1942
2430607.5	9	43	2.55	0.88	2	14	45	20.25	- 1.84	2	1942
2430610.5	9	57	31.20	1.03	2	13	35	55.45	- 1.74	2	1942
2430615.8	10	22	47.36	1.82	4						1942
2430616.3						11	12	13.76	- 1.30	3	1942
2430620.7	10	45	49.90	1.51	3	9	16	0.45	- 0.85	3	1942
2430626.0	11	10	27.95	0.87	5	6	49	18.19	- 1.88	5	1942
2430629.0	11	24	18.42	2.62	4	5	23	37.79	- 3.18	4	1942
2430633.0	11	42	40.67	1.75	2	3	27	10.15	- 0.13	2	1942
2430634.8	11	50	55.40	2.48	5	2	34	4.53	- 1.86	5	1942
2430640.2	12	15	37.54	0.07	6	- 0	6	44.93	- 1.30	6	1942
2430647.7	12	50	0.33	1.61	3	- 3	51	7.92	- 1.44	3	1942
2430651.5	13	7	31.89	1.63	2	- 5	43	45.58	- 1.54	2	1942
2430655.7	13	27	2.49	- 1.32	3	- 7	46	17.77	- 0.78	3	1942
2430702.5	17	24	7.59	1.82	2	-23	31	1.78	1.94	2	1942
2430706.5	17	46	2.92	2.39	2	-23	53	23.57	0.10	2	1942
2430710.7	18	9	9.53	1.97	3	-24	4	9.57	2.58	3	1942
2430716.0	18	38	20.16	- 0.95	3	-23	59	0.88	1.73	3	1942
2430723.5	19	19	22.20	- 1.90	4	-23	16	11.86	- 0.82	4	1943
2430730.0	19	54	24.48	- 1.61	5	-22	6	35.50	- 0.98	4	1943
2430735.7	20	24	32.92	- 2.62	6						1943
2430736.0						-20	37	23.52	0.56	5	1943
2430738.3	20	38	5.05	- 1.10	4	-19	57	19.79	- 1.54	4	1943
2430743.5	21	4	43.20	- 1.53	2	-18	15	38.98	- 0.04	2	1943
2430748.5	21	29	46.47	- 2.18	2	-16	24	44.17	- 1.33	2	1943
2430752.5	21	49	25.89	- 2.91	2	-14	47	46.42	- 1.77	2	1943
2430757.7	22	14	30.15	- 2.29	3	-12	32	14.85	- 2.10	3	1943

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	H	M	S	"		O	"	"	"		
2430764.7	22	47	28.35	- 4.51	6	- 9	15	56.47	- 3.80	6	1943
2430769.5	23	9	38.46	- 1.54	2	- 6	54	12.63	0.61	2	1943
2430773.9	23	29	42.56	- 3.28	7	- 4	40	41.07	- 0.40	7	1943
2430779.8	23	56	20.59	- 3.71	5	- 1	38	5.82	- 2.91	5	1943
2430786.5						1	51	15.08	- 3.30	4	1943
2430786.8	0	27	43.22	- 4.32	5						1943
2430792.8	0	54	35.78	- 5.46	4	5	6	53.31	- 3.42	4	1943
2430800.0	1	27	2.03	- 2.60	3	8	44	59.88	- 1.99	3	1943
2430802.5	1	38	22.87	- 2.97	2	9	58	33.02	- 2.43	2	1943
2430808.2	2	4	29.32	- 2.75	5						1943
2430808.5						12	48	54.88	- 2.54	4	1943
2430814.0				- 4.62	3	15	15	36.17	- 3.19	3	1943
2430816.0	2	40	52.64	- 2.38	1	16	6	18.66	- 1.09	1	1943
2430821.2	3	5	38.50	- 3.80	5	18	10	33.43	- 2.75	5	1943
2430828.5	3	41	7.14	- 3.04	4	20	43	58.24	- 0.84	4	1943
2430832.5	4	0	53.75	- 1.85	2	21	56	11.45	- 3.11	2	1943
2430836.5	4	20	53.00	- 3.61	2	22	59	16.23	- 1.98	2	1943
2430844.0	4	58	49.21	- 1.19	1	24	30	54.40	- 0.66	1	1943
2430846.0	5	9	0.41	- 1.33	1						1943
2430857.0	6	5	5.32	- 2.27	3	25	41	17.82	- 1.04	3	1943
2430863.1	6	35	50.42	- 3.17	8	25	34	34.25	1.07	8	1943
2430871.5	7	17	10.42	- 1.73	2	24	45	1.26	0.41	2	1943
2430879.8	7	56	20.03	- 2.16	4	23	13	44.94	0.24	4	1943
2430885.7	8	22	52.44	- 2.56	3	21	46	17.73	2.37	3	1943
2430894.0	8	58	3.55	- 3.38	3	19	16	34.11	1.37	3	1943
2430898.0	9	14	1.92	- 4.26	6	17	55	10.64	0.93	6	1943
2430900.5	9	23	40.41	- 1.30	2	17	1	47.07	0.38	2	1943
2430904.7	9	39	15.22	- 2.96	3	15	28	23.38	0.85	3	1943
2430907.5	9	49	11.75	- 3.72	4	14	23	58.92	2.12	4	1943
2430911.5	10	2	44.82	- 3.59	2	12	49	42.09	3.28	2	1943
2430914.0	10	10	48.50	- 1.91	2	11	49	44.87	1.10	2	1943
2430921.0	10	31	32.28	- 4.42	3	9	0	14.88	3.93	3	1943
2430928.5	10	50	19.87	- 3.42	2	6	0	55.56	0.96	2	1943
2430936.0	11	4	52.29	- 3.45	2	3	11	45.49	1.36	2	1943
2430941.0						1	29	22.34	- 0.73	3	1943
2430941.5	11	12	14.05	- 2.66	4						1943
2430945.8	11	15	39.88	- 4.16	5	0	2	57.43	1.57	5	1943
2430949.0	11	16	43.29	- 5.73	6	- 0	46	13.80	1.32	6	1943
2430953.7	11	15	45.23	- 3.86	3	- 1	43	0.06	2.23	3	1943
2430957.8	11	12	22.51	- 5.88	4	- 2	14	30.39	3.14	4	1943
2430961.7	11	7	3.16	- 5.20	3	- 2	26	29.40	1.35	3	1943
2430967.5	10	55	59.44	- 4.64	2	- 2	9	13.79	2.64	2	1943
2430975.8	10	37	12.21	- 1.23	5	- 0	38	16.48	2.35	5	1943
2430979.7	10	29	5.63	- 2.45	6	0	22	18.57	4.75	6	1943
2430983.5						1	24	53.66	2.08	2	1943
2430984.0	10	21	56.56	- 0.99	3						1943
2430990.5						3	12	30.10	- 1.54	2	1943
2430991.0	10	15	53.84	0.95	3						1943
2430996.5	10	16	28.01	- 0.72	2						1943
2430997.0						4	27	51.54	0.48	1	1943
2431004.1						5	13	31.84	- 1.03	7	1943
2431004.3	10	24	37.47	3.36	7						1943
2431007.5	10	30	6.13	2.84	4						1943
2431008.0						5	21	36.01	- 1.68	3	1943
2431010.8	10	36	50.97	2.48	5						1943

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	H	M	S	"		° ' "	"		
2431011.0						5 19 47.42	- 1.44	4	1943
2431018.5	10	56	12.40	3.55	6	4 46 24.72	- 2.08	6	1943
2431026.8	11	21	22.62	6.01	5	3 26 34.82	- 3.40	5	1943
2431030.8						2 34 19.89	- 1.74	4	1943
2431031.0	11	35	21.69	2.18	3				1943
2431034.0	11	45	45.63	0.81	2	1 46 56.22	- 0.74	2	1943
2431040.2	12	8	10.47	1.83	5	0 2 47.23	- 0.72	5	1943
2431047.3	12	35	8.64	3.24	3	- 2 12 49.54	- 1.73	3	1943
2431052.0						- 3 49 45.56	0.18	2	1943
2431053.0	12	57	39.19	0.37	1				1943
2431054.5	13	3	41.67	2.46	4	- 4 43 2.52	- 1.58	4	1943
2431061.0	13	30	23.99	1.41	2	- 7 5 2.67	- 0.04	2	1943
2431067.0	13	55	48.56	4.27	5	- 9 17 55.18	- 2.12	5	1943
2431075.0	14	30	51.47	1.97	2	-12 12 16.28	- 1.94	2	1943
2431079.8						-13 52 34.47	- 1.52	4	1943
2431080.0	14	53	28.18	2.88	3				1943
2431088.0	15	30	47.63	2.45	2	-16 31 6.21	- 1.67	2	1943
2431095.7	16	8	1.44	4.26	3	-18 39 16.26	- 1.82	3	1944
2431101.5	16	36	52.20	2.55	2	-19 58 55.51	- 1.74	2	1944
2431104.0	16	49	30.07	3.07	2	-20 28 7.33	- 0.88	2	1944
2431110.0	17	20	14.24	2.17	1	-21 24 22.48	- 1.51	1	1944
2431115.0	17	46	13.20	1.84	3	-21 55 12.35	- 2.42	3	1944
2431121.0	18	17	41.19	- 0.40	1	-22 11 41.65	- 0.26	1	1944
2431124.0	18	33	29.08	3.22	3	-22 11 15.38	3.81	3	1944
2431129.5	19	2	26.93	1.76	6				1944
2431129.8						-21 53 55.88	3.26	4	1944
2431133.5	19	23	27.24	2.15	2	-21 31 30.46	2.28	2	1944
2431136.5	19	39	8.27	2.87	2	-21 6 55.77	2.38	2	1944
2431141.7	20	6	6.91	3.39	3	-20 11 8.05	4.02	3	1944
2431145.3	20	24	35.71	1.86	4	-19 23 7.37	2.50	4	1944
2431149.5	20	45	54.98	2.67	2	-18 17 54.60	1.75	2	1944
2431151.0	20	53	27.76	2.52	2	-17 52 20.77	1.36	2	1944
2431154.5	21	10	55.55	2.73	2	-16 48 15.68	2.97	2	1944
2431161.5	21	45	14.01	1.67	2	-14 23 8.82	2.04	2	1944
2431165.7	22	5	25.99	3.55	3	-12 46 26.03	3.20	3	1944
2431170.5	22	28	11.21	2.69	2	-10 48 21.02	3.87	2	1944
2431173.5	22	42	14.49	0.95	2	- 9 31 2.52	1.58	2	1944
2431179.0	23	7	43.37	2.77	1	- 7 3 22.57	3.55	1	1944
2431182.0	23	21	28.95	0.45	1	- 5 40 18.90	- 0.70	1	1944
2431187.0	23	44	15.70	3.40	1	- 3 18 38.52	3.73	1	1944
2431193.0	0	11	25.27	1.58	3				1944
2431194.0						0 3 31.98	0.76	2	1944
2431196.5	0	27	14.01	0.89	2	1 16 15.05	2.43	2	1944
2431200.5						3 12 24.08	1.78	4	1944
2431200.6	0	45	46.43	2.10	5				1944
2431208.0	1	19	24.78	1.35	3	6 47 19.07	0.02	3	1944
2431215.0	1	51	37.89	0.57	3	10 0 49.95	1.02	3	1944
2431219.0	2	10	17.77	0.21	2	11 46 43.18	0.31	2	1944
2431222.5	2	26	48.90	1.65	2	13 15 49.03	- 0.95	2	1944
2431240.0	3	52	33.74	0.34	1	19 33 23.05	0.86	1	1944
2431250.0	4	44	1.89	- 1.10	1	22 1 33.32	0.23	1	1944
2431254.0	5	5	3.58	- 0.83	1				1944
2431254.5						22 48 35.14	0.41	2	1944
2431258.0	5	26	17.32	1.23	1	23 16 3.05	0.63	1	1944
2431284.0	7	45	12.22	- 1.23	1	22 14 32.07	0.15	1	1944

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	H	M	S	"		O	"	"	"		
2431292.7	8	30	20.42	- 0.26	3	20	12	35.08	0.10	3	1944
2431296.3						19	9	2.12	- 0.95	3	1944
2431296.7	8	50	38.83	- 0.95	3						1944
2431300.0	9	7	10.16	- 0.67	1	17	56	30.31	1.18	1	1944
2431313.5	10	12	35.01	- 1.56	4	12	38	30.27	1.62	4	1944
2431318.5	10	36	0.39	- 0.56	4	10	23	32.41	0.46	4	1944
2431325.0	11	5	55.99	- 0.68	2	7	17	58.65	- 0.10	2	1944
2431327.5	11	17	18.87	- 0.08	2	6	4	13.66	1.63	2	1944
2431334.0	11	46	39.44	- 0.93	1	2	48	1.19	0.85	1	1944
2431338.0	12	4	35.99	- 0.98	4	0	45	12.77	1.18	4	1944
2431340.3	12	14	53.94	- 0.99	3	- 0	25	44.70	1.00	3	1944
2431350.5	13	0	40.74	- 1.07	2						1944
2431352.0						- 6	24	47.41	1.25	1	1944
2431355.0	13	21	3.68	- 1.09	1	- 7	54	49.64	1.24	1	1944
2431363.0	13	57	49.36	- 0.51	1	-11	46	42.78	1.61	1	1944
2431371.0						-15	21	29.98	1.87	1	1944
2431372.5	14	42	41.86	- 1.71	2						1944
2431377.0	15	4	31.75	- 1.43	1	-17	47	28.11	0.92	1	1944
2431382.5	15	31	45.72	- 2.14	2	-19	47	12.61	1.80	2	1944
2431389.0	16	4	43.47	- 2.32	3	-21	48	27.12	1.45	3	1944
2431394.5	16	33	13.42	- 1.74	2	-23	11	34.86	1.13	2	1944
2431397.0	16	46	20.45	0.05	1	-23	42	58.16	0.11	1	1944
2431402.0						-24	32	58.29	1.48	2	1944
2431402.3	17	14	25.10	- 2.51	3						1944
2431409.0	17	50	16.84	- 0.07	3	-25	13	5.89	1.09	3	1944
2431416.0	18	27	51.09	- 1.40	2	-25	17	4.19	- 1.19	2	1944
2431422.0	18	59	49.74	- 2.00	1	-24	51	31.33	- 1.82	1	1944
2431429.0						-23	48	53.77	1.49	1	1944
2431429.5	19	39	6.61	- 1.10	2						1944
2431433.0	19	57	4.40	- 0.73	1	-22	58	11.30	- 2.15	1	1944
2431439.0	20	27	12.19	- 1.16	2						1944
2431440.0						-21	5	10.15	- 1.43	1	1944
2431443.0	20	46	46.33	- 1.39	1	-20	8	5.04	- 1.14	1	1944
2431454.0	21	38	14.58	- 1.48	1	-16	1	7.67	- 1.75	1	1944
2431459.0	22	0	28.15	- 2.52	2	-13	52	40.92	- 3.87	2	1945
2431467.0	22	34	33.45	- 2.05	2	-10	11	35.22	- 2.52	2	1945
2431473.7	23	1	45.96	- 5.13	3						1945
2431474.0						- 6	47	2.39	- 2.55	2	1945
2431480.5	23	28	9.86	- 3.52	2	- 3	31	57.67	- 2.56	2	1945
2431488.0	23	55	51.01	- 2.55	2	0	14	30.38	- 2.06	1	1945
2431494.0	0	16	52.83	- 3.96	1	3	13	25.64	- 1.24	1	1945
2431499.7	0	35	51.76	- 3.62	3	5	58	56.89	- 1.84	3	1945
2431507.5	0	59	57.06	- 3.76	2	9	34	2.07	- 5.08	2	1945
2431512.0	1	12	37.02	- 3.21	2	11	29	53.04	- 0.79	2	1945
2431516.5	1	24	9.52	- 3.15	2	13	17	51.83	- 1.80	2	1945
2431521.7	1	35	47.54	- 5.94	3	15	10	54.40	- 3.41	3	1945
2431525.5	1	42	54.30	- 3.24	2	16	24	3.83	- 3.15	2	1945
2431529.3	1	48	37.01	- 4.66	4	17	27	49.06	- 2.26	4	1945
2431534.5	1	53	44.72	- 4.96	2	18	36	44.76	- 2.96	2	1945
2431538.3	1	55	13.46	- 5.04	3	19	11	4.67	- 1.39	3	1945
2431541.7	1	54	45.17	- 6.01	3	19	28	6.02	- 2.56	3	1945
2431549.7	1	46	50.74	- 5.18	3						1945
2431550.0						19	5	3.73	- 5.15	2	1945
2431554.8	1	37	35.59	- 5.70	4						1945
2431555.5						17	54	48.94	- 1.60	2	1945

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	H	M	S	"		O	"	"	
2431560.0	1	26	24.93	2.30	1	16 28	13.48	1.30	1 1945
2431565.5	1	14	51.06	0.40	2	14 19	46.21	- 1.84	2 1945
2431569.5	1	7	54.13	0.95	2	12 42	27.30	0.20	2 1945
2431576.0	1	0	57.75	0.25	2	10 20	28.98	0.65	1 1945
2431579.0	0	59	51.10	0.57	2	9 27	35.39	1.27	2 1945
2431583.7	1	0	46.11	1.85	3	8 24	40.76	0.35	3 1945
2431588.3	1	4	33.60	1.11	3				1945
2431589.0						7 43	37.10	- 0.57	2 1945
2431592.0	1	9	26.33	1.29	2	7 33	37.12	0.75	2 1945
2431598.3						7 39	57.34	- 0.14	3 1945
2431598.5	1	21	20.63	1.58	4				1945
2431602.3	1	29	58.19	0.68	3				1945
2431603.0						8 5	18.72	1.02	2 1945
2431605.5	1	38	2.67	- 0.01	2	8 24	46.30	1.20	2 1945
2431609.3	1	48	29.01	1.26	3	9 1	3.08	1.87	3 1945
2431614.0	2	2	30.60	0.33	3	9 55	5.19	- 0.59	2 1945
2431620.0	2	21	57.27	2.34	3	11 14	56.92	1.80	3 1945
2431622.7	2	31	11.93	1.47	3	11 53	37.04	0.94	3 1945
2431629.0	2	53	50.84	0.28	2	13 27	37.31	0.68	2 1945
2431632.5	3	7	2.47	1.91	2	14 20	48.18	1.16	2 1945
2431635.5	3	18	40.55	0.41	2	15 6	10.96	- 0.03	2 1945
2431639.3	3	33	49.92	1.58	3	16 2	42.28	0.99	3 1945
2431645.0	3	57	23.44	0.88	2	17 23	34.85	0.79	2 1945
2431648.8	4	13	36.76	1.32	4	18 13	40.47	1.90	4 1945
2431653.5	4	34	12.62	1.84	2	19 10	3.27	2.40	2 1945
2431658.0	4	54	26.98	1.48	1	19 57	4.82	1.72	1 1945
2431665.0	5	26	51.02	1.85	1	20 54	11.56	1.98	1 1945
2431670.5	5	52	59.23	1.63	2	21 23	19.69	1.05	2 1945
2431675.8	6	18	37.27	1.79	5				1945
2431676.0						21 37	4.53	0.96	4 1945
2431678.5	6	31	48.54	0.74	2	21 37	56.19	1.09	2 1945
2431683.0	6	53	55.70	0.67	1	21 30	37.94	- 1.65	1 1945
2431689.3	7	25	3.98	0.50	4	21 1	4.62	0.66	4 1945
2431693.5	7	45	51.34	0.49	2	20 28	39.91	- 0.47	2 1945
2431696.8	8	2	10.13	1.58	4	19 56	9.60	0.12	4 1945
2431702.0						18 52	37.10	0.25	1 1945
2431708.7	9	0	28.44	4.26	3	17 9	30.86	- 2.22	3 1945
2431711.5	9	14	0.71	0.79	2	16 19	48.63	- 0.14	2 1945
2431716.5	9	37	59.20	1.97	2	14 41	59.84	- 1.99	2 1945
2431720.7	9	57	55.11	2.46	3	13 11	37.74	- 1.35	3 1945
2431725.7	10	21	24.69	2.63	3	11 15	14.95	- 2.29	3 1945
2431731.5	10	48	22.41	3.34	2	8 49	53.22	- 3.63	2 1945
2431738.5	11	20	34.16	1.94	4	5 42	37.73	- 2.18	4 1945
2431745.4	11	52	4.17	2.30	5	2 28	57.16	- 2.10	5 1945
2431749.5	12	10	44.76	1.10	2	0 31	11.10	- 1.73	2 1945
2431756.5	12	42	42.40	1.78	2	- 2 51	45.21	- 2.63	2 1945
2431759.7	12	57	23.75	1.68	3	- 4 24	20.55	- 1.26	3 1945
2431761.0	13	3	23.12	2.00	1	- 5 1	48.64	- 1.67	1 1945
2431766.5	13	28	53.41	2.80	2	- 7 38	22.57	- 2.45	2 1945
2431772.5	13	57	6.48	2.11	2	-10 23	45.41	- 1.77	2 1945
2431777.5	14	21	1.05	1.07	2	-12 35	15.37	- 0.18	2 1945
2431781.7	14	41	25.72	2.49	3	-14 20	1.50	- 1.35	3 1945
2431786.5	15	5	9.48	1.56	4	-16 12	2.08	- 2.12	4 1945
2431789.5	15	20	13.21	1.82	2	-17 17	14.58	- 2.22	2 1945
2431792.0	15	32	54.55	1.51	2	-18 8	26.81	- 2.73	2 1945

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	H	M	S	"		O	"	"	"		
2431797.0	15	58	39.67	2.29	3	-19	41	25.17	- 0.61	3	1945
2431801.0	16	19	36.47	2.89	3	-20	45	58.32	- 2.93	3	1945
2431804.0	16	35	30.26	2.93	3	-21	28	8.00	- 3.00	3	1945
2431808.5	16	59	37.01	1.46	2	-22	20	41.21	- 1.58	2	1945
2431812.5	17	21	16.87	1.27	2	-22	56	5.46	- 1.58	2	1945
2431818.0	17	51	19.58	- 0.45	3	-23	26	31.03	0.12	3	1945
2431823.8	18	23	10.52	0.96	4	-23	34	59.18	1.32	4	1946
2431831.0	19	2	38.22	0.14	1	-23	11	24.51	- 1.80	1	1946
2431874.0	22	42	5.55	- 1.15	2	- 9	47	15.86	- 0.45	2	1946
2431877.0	22	56	8.91	- 0.37	1	- 8	21	53.85	- 0.93	1	1946
2431885.0	23	33	6.03	- 2.34	3	- 4	25	26.39	- 2.25	3	1946
2431887.5	23	44	31.69	- 0.47	2	- 3	9	40.22	- 1.80	2	1946
2431893.3	0	10	54.01	- 1.37	3	- 0	12	5.56	- 1.52	3	1946
2431900.7	0	44	27.14	- 1.04	3						1946
2431901.0						3	44	7.00	- 0.58	4	1946
2431905.8	1	7	39.34	- 1.58	4	6	9	24.45	- 1.76	4	1946
2431909.5	1	24	35.55	- 1.33	2	7	59	21.62	- 1.75	2	1946
2431913.0	1	40	43.62	- 1.85	3	9	41	8.21	- 0.23	3	1946
2431917.5	2	1	40.40	- 1.39	2	11	47	50.66	- 1.50	2	1946
2431920.3	2	14	50.38	- 2.08	3	13	3	53.81	- 1.44	3	1946
2431928.3	2	53	7.21	- 1.88	4	16	26	34.50	- 1.30	4	1946
2431932.0	3	11	11.53	- 2.58	3	17	51	42.32	- 1.06	3	1946
2431936.5	3	33	30.52	- 0.59	2	19	26	40.55	- 3.00	2	1946
2431940.0	3	51	7.20	- 0.77	1	20	33	27.17	- 1.44	1	1946
2431947.8	4	31	7.40	- 2.59	5	22	37	16.02	- 1.07	5	1946
2431955.2	5	9	52.07	- 1.01	5	23	59	24.43	- 0.89	5	1946
2431962.8	5	50	8.84	- 3.13	5	24	44	50.07	- 0.76	5	1946
2431968.5	6	20	26.71	- 0.89	2	24	51	57.00	- 0.96	2	1946
2431978.5	7	13	8.35	- 1.05	2	24	8	31.22	0.49	2	1946
2431982.5	7	33	51.57	- 2.28	2	23	31	49.25	1.84	2	1946
2431985.5	7	49	12.89	- 1.19	2	22	57	22.55	- 0.08	2	1946
2431990.0	8	11	54.16	- 1.27	2	21	55	13.36	0.89	2	1946
2431995.7	8	39	59.19	- 2.82	3	20	19	33.40	1.25	3	1946
2431999.0	8	55	53.52	- 2.03	3	19	16	12.55	0.48	3	1946
2432005.0	9	24	7.26	- 0.34	1						1946
2432010.0	9	46	57.35	- 2.54	1	15	8	55.78	0.66	1	1946
2432014.0						13	27	25.04	0.99	1	1946
2432014.5	10	6	59.52	- 0.44	2						1946
2432019.5	10	28	42.25	- 1.64	2						1946
2432019.7						10	54	20.75	1.32	3	1946
2432029.5	11	10	35.94	- 2.09	2	6	13	41.83	0.37	2	1946
2432032.0	11	20	47.58	- 2.11	2	4	59	35.17	0.51	2	1946
2432034.5	11	30	53.22	- 2.25	2	3	44	47.66	0.93	2	1946
2432045.5	12	14	15.07	- 1.78	2	- 1	48	7.03	- 0.04	2	1946
2432050.5	12	33	28.69	- 2.18	2	- 4	18	52.44	1.43	2	1946
2432068.0	13	38	52.57	- 1.11	1	-12	42	22.46	0.92	1	1946
2432073.5	13	58	44.66	- 2.94	2						1946
2432074.0						-15	19	42.48	0.79	1	1946
2432096.5	15	14	21.53	- 2.15	2	-23	13	52.05	1.15	2	1946
2432108.5	15	43	5.37	- 2.50	2	-25	46	16.60	1.87	2	1946
2432116.0	15	53	36.23	- 3.00	2	-26	34	10.52	2.08	2	1946
2432118.5	15	55	24.86	- 4.07	2	-26	40	23.18	1.94	2	1946
2432123.0	15	56	12.93	- 3.31	1	-26	37	11.92	2.65	1	1946
2432127.5	15	53	40.35	- 2.52	2	-26	13	10.46	2.11	2	1946
2432130.0	15	50	49.45	- 4.65	2	-25	49	48.96	3.62	2	1946

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	H	M	S	"		O	"	"	"		
2432134.5	15	43	25.64	- 3.35	2	-24	49	2.38	2.96	2	1946
2432146.3	15	17	34.24	- 0.07	3	-20	39	23.80	1.54	3	1946
2432153.5	15	5	17.66	2.64	2	-17	56	18.73	- 1.53	2	1946
2432159.4	15	0	37.38	1.16	5	-16	11	36.13	- 2.55	5	1946
2432164.0	15	0	45.81	2.58	3	-15	16	2.69	- 2.84	3	1946
2432168.3	15	3	46.01	4.42	3	-14	45	27.92	- 3.29	3	1946
2432174.5	15	12	25.57	1.98	4	-14	33	52.55	- 3.52	4	1946
2432182.0	15	28	33.22	0.46	1	-14	59	46.20	- 1.09	1	1946
2432189.0	15	48	1.85	2.36	3	-15	50	0.29	- 2.72	3	1947
2432193.7	16	3	4.02	4.26	3	-16	31	49.61	- 3.20	3	1947
2432197.0	16	14	26.30	3.88	4	-17	3	4.53	- 2.04	4	1947
2432203.0	16	36	37.43	3.17	3	-18	0	24.65	- 2.68	3	1947
2432206.7	16	51	9.62	5.01	3	-18	34	10.67	- 2.70	3	1947
2432213.5	17	19	18.80	2.45	2						1947
2432214.0						-19	32	27.23	- 0.37	1	1947
2432217.0	17	34	26.06	1.76	1	-19	51	57.09	- 2.09	1	1947
2432219.7	17	46	21.17	1.66	3	-20	6	42.06	- 0.94	3	1947
2432222.5	17	58	55.55	1.53	2	-20	18	59.72	- 1.67	2	1947
2432229.8	18	32	33.56	1.23	5	-20	34	38.70	0.02	5	1947
2432236.0	19	1	50.73	1.85	2	-20	27	20.74	0.92	2	1947
2432241.5	19	28	9.12	3.16	4	-20	3	52.99	1.78	4	1947
2432244.5	19	42	33.94	1.68	2	-19	44	12.78	0.23	2	1947
2432247.0	19	54	35.39	1.05	2	-19	24	4.71	1.46	2	1947
2432250.0	20	9	1.05	1.78	2	-18	55	30.41	1.22	2	1947
2432256.0	20	37	47.63	1.50	5	-17	44	8.98	1.07	5	1947
2432261.0	21	1	37.16	1.17	2	-16	30	46.07	0.92	2	1947
2432265.0	21	20	31.97	1.18	3	-15	23	30.94	1.49	3	1947
2432271.0	21	48	36.56	2.06	2	-13	29	34.58	2.28	2	1947
2432274.0						-12	27	16.16	1.29	1	1947
2432275.0	22	7	6.80	0.37	2						1947
2432282.5						- 9	14	4.18	1.54	2	1947
2432283.0	22	43	38.19	0.95	3						1947
2432288.5	23	8	25.14	0.48	2	- 6	45	22.74	1.15	2	1947
2432292.3	23	25	25.12	1.89	3	- 5	7	6.55	1.61	3	1947
2432296.5	23	44	7.01	0.30	2	- 3	15	39.84	0.54	2	1947
2432299.7	23	58	19.21	1.16	3	- 1	49	13.66	1.47	3	1947
2432305.0	0	21	48.37	1.35	3	0	35	44.18	1.68	3	1947
2432307.5	0	32	53.32	1.99	2	1	44	31.01	1.80	2	1947
2432314.0	1	1	47.71	0.69	2	4	43	1.80	1.67	2	1947
2432319.0	1	24	12.31	2.32	2	6	58	34.61	0.76	2	1947
2432323.5	1	44	33.85	1.30	2	8	58	0.36	2.47	2	1947
2432330.5	2	16	42.34	0.88	2	11	56	16.39	1.47	2	1947
2432334.0	2	33	1.93	1.11	3	13	20	55.05	1.89	3	1947
2432341.0	3	6	16.92	0.69	3	15	58	42.93	0.80	3	1947
2432347.0	3	35	28.72	0.24	3	17	59	19.90	0.83	3	1947
2432354.0	4	10	23.35	1.54	2	19	59	30.12	1.20	2	1947
2432358.0	4	30	43.83	0.29	1	20	56	51.66	1.15	1	1947
2432363.0	4	56	31.21	1.00	3	21	55	47.27	2.72	3	1947
2432369.8	5	32	7.94	2.18	4	22	51	21.76	0.48	4	1947
2432379.0	6	20	56.88	- 0.54	1	23	18	24.43	- 0.59	1	1947
2432383.5	6	44	55.05	- 0.74	2	23	10	43.86	- 0.61	2	1947
2432391.3	7	26	17.26	- 0.55	3	22	24	48.45	- 1.61	3	1947
2432396.0	7	50	57.90	0.90	2	21	37	41.21	- 1.88	2	1947
2432399.5	8	9	9.87	0.99	2	20	53	30.56	- 2.23	2	1947
2432403.5	8	29	44.82	1.64	4	19	53	58.61	- 1.88	4	1947

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	H	M	S	"		°	'	"	"		
2432409.0	8	57	37.77	1.89	1	18	17	17.38	- 1.43	1	1947
2432455.0	12	33	57.28	- 0.65	2	- 2	19	46.51	- 0.30	2	1947
2432458.7	12	50	49.35	- 2.62	3	- 4	12	16.71	- 0.31	3	1947
2432461.0	13	1	20.81	- 1.12	1	- 5	21	42.86	0.39	1	1947
2432467.0	13	29	0.52	- 1.47	3	- 8	19	52.36	1.54	3	1947
2432470.5	13	45	19.67	- 1.17	2	-10	0	58.62	1.48	2	1947
2432474.5	14	4	11.18	0.89	2	-11	53	5.85	1.67	2	1947
2432481.0	14	35	22.69	- 1.54	3	-14	45	22.63	0.74	3	1947
2432502.5	16	24	25.02	- 1.16	2	-22	5	9.30	1.10	2	1947
2432510.3	17	6	8.32	- 2.10	4	-23	38	29.48	2.26	4	1947
2432515.5	17	34	23.33	- 0.84	4	-24	17	9.48	2.50	4	1947
2432522.3	18	11	36.21	0.58	4	-24	37	40.37	1.58	4	1947
2432528.5	18	45	32.60	- 1.37	2	-24	26	5.45	- 0.62	2	1947
2432535.0	19	20	50.44	- 1.58	1	-23	43	10.14	- 0.87	1	1947
2432539.0	19	42	17.64	- 1.15	1	-23	1	37.56	- 1.63	1	1947
2432543.0	20	3	28.30	- 1.28	1	-22	9	5.85	- 1.88	1	1947
2432550.0	20	39	44.73	- 1.39	1	-20	12	34.71	- 1.56	1	1948
2432558.0	21	19	50.63	- 1.51	2	-17	25	18.96	- 1.13	2	1948
2432568.5	22	10	13.90	- 3.56	2	-13	0	53.13	- 2.87	2	1948
2432573.5	22	33	23.54	- 1.05	2	-10	41	3.47	- 3.48	2	1948
2432579.7	23	1	27.50	- 0.97	3	- 7	38	32.59	- 3.15	3	1948
2432585.5	23	27	10.27	- 2.26	2	- 4	41	10.80	- 1.92	2	1948
2432592.0	23	55	30.94	- 4.44	4	- 1	17	51.13	- 3.68	4	1948
2432598.5	0	23	31.03	- 1.48	2	2	7	3.27	- 3.56	2	1948
2432605.3	0	52	36.05	- 2.82	3	5	39	30.57	- 0.71	3	1948
2432608.0	1	4	7.50	- 2.50	2	7	2	27.06	- 3.32	2	1948
2432613.0	1	25	28.73	- 1.95	2	9	33	2.03	- 1.03	2	1948
2432619.0	1	51	11.35	- 1.41	2	12	26	43.32	- 2.12	2	1948
2432628.3	2	31	20.77	- 2.39	3	16	35	38.69	- 1.89	3	1948
2432634.8	2	59	38.20	- 3.47	5	19	10	55.07	- 2.86	5	1948
2432641.0	3	26	43.24	- 3.88	4	21	21	53.86	- 0.64	4	1948
2432643.5	3	37	38.66	- 2.47	2	22	9	31.24	- 0.72	2	1948
2432650.0	4	5	56.46	- 1.67	2	23	58	22.89	- 3.31	2	1948
2432656.7	4	34	41.24	- 2.37	3	25	26	53.00	- 1.30	3	1948
2432664.5	5	6	59.57	- 2.32	2	26	38	23.41	- 0.33	2	1948
2432671.5	5	34	11.09	- 2.70	2	27	14	1.04	- 1.22	2	1948
2432676.5	5	52	6.53	- 2.50	2	27	23	50.17	- 2.49	2	1948
2432683.0	6	12	53.87	- 2.85	1	27	18	55.92	0.75	1	1948
2432695.5	6	41	31.55	- 5.85	2	26	22	32.51	0.83	2	1948
2432700.0	6	46	57.61	- 2.54	1	25	50	15.98	- 0.85	1	1948
2432706.5	6	49	8.56	- 4.28	2	24	54	42.56	- 0.88	2	1948
2432710.5	6	46	52.39	- 3.69	2	24	15	31.36	- 1.91	2	1948
2432714.0	6	42	36.05	- 3.04	1	23	38	7.45	- 1.48	1	1948
2432721.0	6	28	26.44	- 1.85	1	22	15	6.27	0.14	1	1948
2432733.0	5	57	10.58	- 0.35	1	19	45	42.64	0.42	1	1948
2432739.0	5	45	12.70	0.57	1	18	46	42.48	3.36	1	1948
2432742.5	5	40	40.40	- 0.06	2	18	21	37.03	2.35	2	1948
2432750.0	5	37	41.31	- 1.21	1	17	53	6.47	1.03	1	1948
2432762.0	5	50	27.79	- 0.19	1	18	3	19.85	0.06	1	1948
2432775.5	6	23	57.14	2.93	2	18	43	31.50	- 0.14	2	1948
2432781.5	6	43	18.76	3.05	2	18	55	20.89	- 0.74	2	1948
2432788.0	7	6	33.28	1.00	3	18	57	10.53	- 1.06	3	1948
2432791.5	7	19	51.93	- 0.04	2	18	52	2.70	- 2.40	2	1948
2432797.0	7	41	40.92	2.44	4	18	33	58.65	- 3.16	4	1948
2432818.5	9	13	16.27	- 0.04	2	15	10	18.93	- 0.79	2	1948

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	H	M	S	"		O	"	"	"		
2432822.0	9	28	40.21	0.68	1	14	16	38.23	- 0.37	1	1948
2432834.0	10	21	41.21	0.93	1	10	33	8.17	- 1.49	1	1948
2432838.5	10	41	34.28	1.32	2	8	55	24.83	- 2.28	2	1948
2432842.5	10	59	14.31	2.59	2	7	23	9.82	- 1.32	2	1948
2432850.5	11	34	34.52	1.75	2	4	5	53.75	- 1.84	2	1948
2432862.3	12	26	55.20	3.17	3	- 1	6	5.32	- 3.46	3	1948
2432866.5	12	45	42.20	2.56	2	- 3	0	1.55	- 2.01	2	1948
2432872.0						- 5	29	15.79	- 0.57	1	1948
2432873.0	13	15	3.07	2.36	2						1948
2432877.0	13	33	19.99	2.19	2	- 7	43	25.88	- 1.95	2	1948
2432879.5	13	44	51.75	1.47	2	- 8	49	27.17	- 1.97	2	1948
2432886.0	14	15	16.20	2.01	1	-11	36	1.12	- 1.81	1	1948
2432889.0	14	29	32.00	2.19	2	-12	49	37.07	- 0.96	2	1948
2432892.0	14	43	57.23	0.50	1	-14	0	41.43	- 1.65	1	1948
2432907.0	15	58	38.51	1.55	1	-19	5	9.88	- 0.17	1	1948
2432914.0	16	34	58.98	2.05	1	-20	50	17.61	- 2.95	1	1948
2432922.5	17	20	9.95	3.28	2	-22	18	39.28	- 2.62	2	1949
2432926.7	17	42	48.04	2.98	3	-22	44	55.67	- 1.11	3	1949
2432930.5						-22	58	19.44	- 1.92	4	1949
2432930.7	18	4	28.37	1.77	3						1949
2432936.3	18	34	53.55	2.18	3	-22	59	15.76	3.12	3	1949
2432942.5	19	8	29.50	4.30	4	-22	34	11.89	3.20	4	1949
2432950.5	19	51	21.66	4.50	4	-21	22	57.69	2.42	4	1949
2432954.7	20	13	31.21	2.88	3	-20	28	55.22	1.70	3	1949
2432960.5	20	43	37.69	1.05	2	-18	56	54.05	0.14	2	1949
2432963.5	20	58	57.51	1.07	2	-18	1	56.77	- 0.69	2	1949
2432974.3	21	52	43.56	2.65	3	-14	7	50.23	2.29	3	1949
2432978.0	22	10	38.72	1.40	2	-12	36	28.92	2.05	2	1949
2432981.5	22	27	22.77	0.81	2	-11	5	46.59	1.37	2	1949
2433019.0	1	19	45.61	3.38	2	7	7	45.24	0.06	2	1949
2433057.0	4	24	43.57	- 1.87	1	21	45	0.79	- 0.88	1	1949
2433062.0	4	50	54.15	- 1.19	1	22	48	26.74	- 1.72	1	1949
2433069.5	5	30	45.78	- 0.64	2	23	52	50.17	- 3.20	2	1949
2433075.5	6	2	57.36	- 1.70	2	24	16	14.30	- 2.09	2	1949
2433079.5	6	24	27.49	- 0.93	2	24	17	32.42	- 2.36	2	1949
2433083.5	6	45	55.06	- 1.46	4	24	7	22.69	- 2.08	4	1949
2433100.5	8	15	16.55	- 0.95	2	21	20	52.31	0.01	2	1949
2433105.0	8	38	6.98	- 0.30	1	20	6	6.45	0.56	1	1949
2433111.5	9	10	21.37	- 0.47	2	17	58	32.80	- 1.65	2	1949
2433121.5	9	58	12.49	- 2.25	2	14	3	47.48	1.57	2	1949
2433126.0	10	19	5.58	- 1.66	1	12	5	32.95	0.24	1	1949
2433131.0	10	41	52.63	- 1.20	1	9	46	55.70	0.77	1	1949
2433140.0	11	21	57.40	- 2.22	3	5	22	49.62	0.23	3	1949
2433154.0	12	22	51.75	- 1.30	3	- 1	47	52.94	2.11	3	1949
2433159.5	12	46	38.78	0.06	2	- 4	37	57.02	1.71	2	1949
2433161.0	12	53	8.52	0.49	1	- 5	23	59.34	1.21	1	1949
2433168.0	13	23	35.20	- 1.49	3	- 8	55	17.69	2.06	3	1949
2433173.5	13	47	45.78	- 1.54	2	-11	35	25.09	1.80	2	1949
2433180.0	14	16	45.68	- 1.18	1	-14	35	7.35	3.73	1	1949
2433187.7	14	51	51.45	- 2.48	3	-17	50	35.67	1.73	3	1949
2433202.7	16	2	43.09	- 3.93	3	-22	57	18.20	2.94	3	1949
2433217.5	17	15	3.34	- 1.36	2	-25	56	22.62	2.81	2	1949
2433224.0	17	46	52.82	- 1.58	1	-26	30	17.11	1.66	1	1949
2433230.5	18	18	13.04	- 1.44	2	-26	35	58.78	3.00	2	1949
2433239.0	18	57	46.53	- 2.84	1	-26	2	18.50	- 2.73	1	1949